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OFFICE OF EDUCATION

Board Staff Negotiations

JAMES P. STEFFENSEN

Libraries for Technical Education Programs

WALTER J. BROOKING and MARY HELEN MAHAR

OCTOBER 1964

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Vocational and Technical Education Division reorganized

The Division of Vocational and Technical Education of the Office of Education has been reorganized to facilitate the administration of the Vocational Education Act of 1963. The Division, formerly organized according to occupations, will now operate according to functions. The new subdivisions and their duties are these:

The *Professional Resources Staff* will work on curriculum development, teacher education, facilities, and guidance in relation to occupations.

The *Field Administration Staff* will work with State officials responsible for vocational and technical programs.

The *Program Planning and Research Staff* will evaluate current research in vocational education and relate findings to State programs. It will set up testing centers for new methods and materials and institutes for the training of supervisors of teachers of new occupations and will help draw up plans for five area residential vocational schools.

The office of the director of the division will coordinate and supervise the activities of the staffs, approve State plans, and administer fiscal programs for all the branches.

The division will, of course, continue to administer other programs assigned to it under such legislation as the Smith-Hughes Act, George-Barden Act, National Defense Education Act, Area Redevelopment Act, and the Manpower Development and Training Act.

Automation brings changes to public school systems directory

The 1963–64 edition of *Education Directory*, Part 2: *Public School Systems*, released by the Office of Education in August, features statistical information on school systems not possible in previous editions and a new format for presenting standard information. Both changes reflect the use, for the first time, of automatic data-processing equipment.

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE • ANTHONY J. CELEBREZZE, *Secretary*
OFFICE OF EDUCATION . . . FRANCIS KEPPEL, *Commissioner*
L. V. GOODMAN, *Acting Director, Office of Information*

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The flexibility of the data-processing system used by the Office in preparing Part 2 has made it possible to include four tables of national and State statistics on the distribution of local school districts by size and grades taught. The system will also make it possible to develop other statistical tables and mailing lists for various purposes from the punch cards or tape.

The standard information usually presented in Part 2 has also been expanded and is presented directly from the machine tabulation in columnar form. The new edition contains the name of the school system, the name of the superintendent or other administrator, the superintendent's address (including ZIP code), the name of the county, enrollment, and the grades taught in the system.

Three parts of the 1963–64 edition of the *Education Directory*, an annual publication, are available from the Superintendent of Documents, Government Printing Office, Washington, D.C., 20402, for the prices indicated: Part 1, *State Governments* (30 cents); Part 2, *Public School Systems* ($1.50); and Part 3, *Higher Education* ($1). Part 4, *Education Associations*, is now in press.

Part 5, *Federal Government*, will not be issued by the Office for 1963–64. An edition for 1964–65 is now in press.

Foreign teachers take part in postsummer session

One of the problems in arranging programs for educators on technical assistance programs the Technical Education Section of the Office of Education has had to solve is to find useful activities for participants during the "summer gap," the weeks between the summer and fall sessions at U.S. schools and colleges. For the past 3 years the Section has arranged for participants on programs carrying over from summer to fall to attend a postsummer seminar at the School of Education, University of Wisconsin-Milwaukee on "Forces Which Effect Change in Education." Participants attend lectures and take part in small discussion groups on education and its relationship to socioeconomic development, comparative education, and conference development and leadership. Recreational activities—such as visits to an art gallery and a zoo—round out the program.

This year's seminar was held on August 16–29 for 66 participants from 13 countries—Afghanistan, Brazil, Ethiopia, Indonesia, Libya, Paraguay, Saint Lucia (West Indies), Somalia, Sudan, Thailand, Togo, Turkey, and Vietnam. They included teachers from colleges, trade schools, elementary schools, and secondary schools; officials of ministries of education; and students, mostly of technical subjects.

New textbooks for teachers of the blind

Four hundred blind or nearly blind children will take part during the 1964–65 school year in a project that may help other blind children learn to read. The project's goal is to improve the teaching of braille. It will be directed by Professor Georgie Lee Abel and conducted at San Francisco State College under a $77,000 contract with the U.S. Office of Education. If all goes well with the project, a new and improved textbook for use by teachers of the blind will be produced. No new comprehensive text on braille methods has been produced since 1932, Professor Abel says.

The children will be selected from various schools around the country, divided into four groups, and each group taught by one of the four major methods of teaching braille. The method that proves most successful will be used as a guide by the project staff in preparing a new textbook.

Films on art available from the National Gallery

Many of the works of art on display at the National Gallery of Art can be brought into the classroom on film. The Gallery, through its extension services, lends slides, color filmstrips, and 16 mm. films to schools for 2 weeks for the cost of return postage and insurance.

The slides, which are accompanied by brief lecture material, have these titles: 700 Years of Art, Survey of American Painting, Backgrounds of Modern Painting in France, Five Techniques of Painting, American Textiles, America's National Gallery, the Christmas Story in Art, and the Easter Story in Art. The color filmstrips are on American Painting in History and Florentine Art of the Golden Age. The first is for use in the elementary school; the second can be adapted to elementary or secondary school programs. The films are entitled "Art in the Western World," the story of the National Gallery, and "Time Enough to See a World," a discussion of several paintings from the Renaissance to the 20th Century, discussed in relation to both culture and art.

More information on the program is available from the Extension Service, National Gallery of Art, Washington, D.C., 20565.

Counseling Center for deaf receives NIMH grant

The Counseling Center for the Deaf at Gallaudet College has received an award from the National Institute of Mental Health for the expansion of its practicum training program. The grant will help the Center offer at least 1,500 hours of training to full-time interns for at least 9 months by making stipends available. The grant will also enable the Center to add a clinical child psychologist to its staff.

The goal of the Center's program is to help meet the need for professional men and women to provide psychological services to the deaf and hard-of-hearing and their families and to institutions and agencies working with the hearing-impaired.

Gallaudet is the world's only college for the deaf. It receives partial support from the U.S. Department of Health, Education, and Welfare.

The Limits to Deviant Behavior in the Gifted

ROBERT KELLEY

THE GIFTED, by definition, are a group who deviate substantially from the norm of the general population. In fact, their deviant behavior is our clue to their giftedness; for like all persons, they reveal themselves only by their observable and measurable behavior.

When, therefore, we set out to help gifted children develop their potential to the fullest, we are purposefully choosing to work with a group whose behavior is deviant from that of the general population; and we must agree that any provisions we make for the gifted in our schools will not only permit deviant behavior but demand it.

But what do we mean by deviant behavior?

To certain people in particular situations, deviant behavior is easy to define because the limits of what is acceptable have been clearly set. The policeman on his beat, or the general in wartime, spends little time analyzing behavior patterns, nor can he afford to. But as we move further along the scale of human circumstances and conditions, the limits of acceptable behavior become less sharply defined. Sociologists and psychologists, at the other end of the scale from policemen, spend most of their professional lives studying human behavior and trying to establish norms.

Let us tentatively define deviant behavior as that which varies substantially from the accepted patterns of our middle-class society. I say middle-class because our schools are controlled by boards of education made up, for the most part, of middle-class people, and our administrators and teachers fall into the same category. And they support, almost unanimously, the same middle-class standards of behavior—standards that ask each pupil to be diligent and honest, to respect other persons and their rights, and to be willing, even eager, to learn.

But when we define deviant behavior in relation to these standards we are immediately aware that the definition does not meet our needs. It is a definition of deviant *social* and *moral* behavior; and none of us wishes or expects the schools to encourage deviation from these standards. What we do want the schools to encourage—even to demand—is deviation in *intellectual* behavior.

What I am saying is that the school, at the same time that it encourages deviation in intellectual behavior, should be wary of deviant social behavior. The ideal school system, it seems to me, even while it is taking individual differences of its pupils into account, will hold certain purposes for all pupils at all levels of the curriculum. It will teach all its pupils to be honest, diligent, and respectful of others; it will try to develop in all of them an understanding of and pride in their national heritage; it will try to give all of them high standards of social conduct that will help them to live harmoniously and effectively with others. In short, the school will try to help all its pupils, whether average or exceptional, to develop into socially desirable citizens. Whenever a pupil's behavior becomes noticeably deviant from what is deemed to be responsible social behavior for his age level, he should be guided accordingly. For the well-being of both the individual child and the society of which he is a part, there should be little room in any school program for deviant social behavior. Virgil S. Ward, in his *Educating the Gifted—An Axiomatic Approach*, makes the point well: "Intellectual capacity appears to develop optimally only when its development is paralleled by sound growth in social and emotional adjustment." He also points out that "the importance of personal, social, and character development for the gifted is attested

Mr. Kelley is supervisor of education of the gifted in the New York State Education Department.

by . . . the fact that the gifted characteristically assume positions of leadership and influence."

In other words, as long as we are considering social, psychological, and moral behavior in programs for the gifted, we can find little if any argument for much deviation from the norm. Intellectual behavior, however, is quite another matter.

The intellectual behavior of gifted children deviates from the norm; and the schools hope to encourage it to deviate still more. These children require less effort than other children to assimilate a certain amount of knowledge, or they assimilate more knowledge than other children who make the same amount of effort. This deviation can be measured, to the extent that it reflects itself in observable behavior; and schools search eagerly for indications of it, using such instruments as the Stanford-Binet examination. Now, a Stanford-Binet examination does not measure intelligence as most people understand the word. What it does do is measure behavior—that behavior which we believe to be controlled by the subjects' intelligence.

How does this behavior manifest itself in the classroom? Should the school also set limits on deviancy in intellectual behavior? If so, how should these limits be set and how should they be maintained? The answers to these questions can be found only in the philosophy and goals of the school's program. In fact, unless the school bases its program on a firm and clear statement of purpose, it is not likely to come up with anything particularly useful for the gifted.

It is my personal observation that far too many of the so-called programs for the gifted are suffering from lack of a central purpose. Time and time again school administrators have pointed out to me with great pride their provisions for the gifted; and all too often, these provisions have proved to be nothing more than a collection of patchwork efforts—unrelated from grade to grade and relying heavily on the competence, interests, and moods of the individual teacher. In such situations there is no program, and it is ridiculous to try to consider how much latitude should be given to deviant intellectual behavior. I am probably overambitious to wish for every school to develop a program which is *all of a piece* from kindergarten through high school, but such programs are possible and they do exist.

Assume, then, that we are considering only well-planned programs, and let us return to a consideration of what a school's attitude might be toward deviant intellectual behavior.

For instance, if a program is designed for acceleration, the school should consider as unacceptable any intellectual behavior which falls below the standard set by the school as appropriate for the program. To permit any pupil who is deviant in this downward direction to remain in class may raise feelings of frustration, hostility, guilt, and inferiority, and will surely impede the progress of the class as a whole. If a program has creativity as its core, the school will have to insist on intellectual behavior which deviates from the norm but which falls within the prescribed limits of behavior for creative individuals.

But can anyone set limits of behavior for the creative? Does not creativity, by its very nature, require that restrictions and ordinary codes be dispensed with? Are not most highly creative people socially eccentric or neurotic?

Psychologist Lawrence S. Kubie, in his little volume entitled *The Neurotic Distortion of the Creative Process*, published in 1961, discredits this idea. Neurotic behavior, he says, hampers creativity by its stereotyped domination of behavior for unconscious purposes. According to him, the creative mind functions best "only when it is not subject to distorting pressures such as the rigidity of reality and the rigidity of neurotic functions and needs."

If what we want from the gifted is a good deal of deviation in intellectual behavior and little deviation in social behavior, then we must answer this question: Are there any circumstances in which superior intellectual behavior will directly result in deviant social behavior? The answer is "yes."

Take, for example, Leta Hollingworth's case of the bright child who knew that his teacher was incorrect when she told the class that Gutenberg discovered the printing press. He knew that the printing press was invented, not discovered, and that the Chinese had printing presses long before Gutenberg's time. But the child also knew that "the rules of the game" prohibit him from telling the teacher that she was misinformed. What should he do? Should he act as the rules of social behavior dictate or as his intellect demands? What would his parents advise? What would his teacher want? What course is "right"? What course would constitute undesirable deviant behavior in the child?

Any answers to this child's questions would, of course, be value judgments, and we would never be able to give him the answer. I press these questions because they require us to take a new look at the main question under consideration; namely, how much allowance for deviant behavior should our programs for the gifted make?

The conflict described above shows that we must widen our sights to include the very real problem of deviant behavior in the *teacher* of the gifted. A class of intellectually gifted pupils needs a teacher who is academically sound and psychologically secure. Any teacher teaching an untruth is exhibiting inexcusable behavior. For teachers as well as for pupils we need a behavior standard.

Miss Hollingworth, writing in the fifteenth yearbook of the Department of Elementary School principals, says most of the difficulties confronting highly gifted pupils are related to the problem of making personal and social adjustments, that is, learning to "suffer fools gladly." Such problems point up the necessity for superior

guidance to be built into any program for the highly gifted, but they do not, I feel, give any reason for accepting deviant social behavior. In fact, there is strong argument to support the thesis that the gifted child has what Ward calls 'peculiar fitness for behavioral adaptations" and should be expected to surmount these problems. Wherever the capacities to generalize, anticipate, and think reflectively exist, there is potential for positive character development; and gifted children possess these capacities to a marked degree. As Ward says, "the qualities critical to the development of ideal behavior would appear to be . . . those accounting most directly for the distinctiveness of the intellectually superior individual."

Board-Staff Negotiations

JAMES P. STEFFENSEN

THE 1964–65 school year will probably see a continuation of the requests by the Nation's school teachers for a greater voice in forming educational policy. These requests for a cooperative approach to policy determination, while of relatively recent origin, were voiced in particularly new and militant tones during the past year. *The New York Times*, in its January 16, 1964, issue, said:

> A resurgence of militancy among the nation's public school teachers marked the year of 1963. There was mounting evidence that teachers are no longer content to rule only the classroom to which they are assigned. They want a hand in the assignment and a voice in the policy that controls their professional lives. They are not asking to run the schools, but they want their views heard and heeded.

The evidence of this new militancy continued to mount during the spring of 1964. Numerous school districts conducted elections among teachers to determine the exclusive representative for negotiation purposes with the board of education. Along with these elections there were strikes, boycotts, or walkouts in several cities and, most important, in one entire State—Utah. These activities, although they have been restricted to a very small proportion of the Nation's school systems, are among the most readily visible signs that a new issue is arising to face American education, the resolution of which will be a matter of great significance in the years ahead. This issue, which is frequently characterized by the brief term "board-staff-superintendent relationships," involves the determination of the most appropriate procedures through which communication between teachers and their boards of education may best be maintained.

Traditionally, board-staff discussions on such matters as salaries and fringe benefits have been based upon the belief that those affected by changes in personnel policies should have some voice in the development of these policies. Such discussions, however, have been the result of the voluntary actions of the two parties. In the sense that the board of education determines whether a voluntary agreement exists, that agreement should not be considered as a bilateral or cooperative determination of policies of common concern.

Now, within the past few years, teachers have developed militancy in the matter. They have acted through their local, State, and national organizations to formalize procedures for engaging in discussions with the board, to put these procedures in a written statement, and to gain legislative support for their participation in such discussions.

This movement of teachers toward a formal system of collective action—what direction will it take in the future? This question in turn raises other questions, other issues, depending on whether it is being discussed within the organizations involved, or whether it is being discussed from a more general point of view.

The organizations involved are, at the national level, the National School Boards Association (NSBA), the American Association of School Administrators (AASA), the National Education Association (NEA), and the American Federation of Teachers (AFT).

The policy of NSBA firmly opposes legislation condoning bargaining or mandating mediation with the teacher groups. The NEA and AFT, while in agreement on many important aspects of collective negotiation and on what they see as the need for such legislation, disagree upon certain points. They disagree, for example, on the role of the superintendent; they also disagree on the wisdom of affiliation with groups external to education. The AASA, representative of the "man in the middle," is naturally deeply concerned over the matter, including any possible diminution of the superintendent's role in the total area of board-staff relationships.

In a more general discussion of the potential changes in American education which might result from a formal system of collective action, quite apart from the internal issues which appear before the various organizations, there are apparently two opposing positions. The first is that which regards the principle of local control of the schools as basic to the American system of education, and which sees local control as able to thrive only

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where a board of education is relatively sovereign, accountable only to the populace of the school community and/or to the State under the laws that established the statutory powers of the board.

The opposite position rests upon the belief that only through participation in the development of those rules which affect his working conditions can the teacher achieve the professional citizenship and status which he deserves and which will permit the full contribution of his skills to the total needs of the school system. Such participation is meaningful, it is argued, only if decisions affecting personnel are reached on a cooperative or bilateral basis.

Can these opposing positions be reconciled? On the basis of the policy statements now available from the several organizations concerned, the answer would appear to be negative until more detailed discussion of the several issues has taken place.

There are at least three important questions which will have to be considered in any effort to reach a compromise among the groups directly involved in this situation.

1. *What types of matters are to be defined as "negotiable"?*

The question of defining the limits of the items which might be included in "working conditions" is probably the most important consideration to be examined in the whole area of collective action by teachers with their boards. For some time, many school boards have voluntarily involved their staff in developing policy on certain items, particularly salaries and fringe benefits.

But now there are indications that teachers' organizations consider as grossly inadequate any definition of working conditions that is limited to economic welfare items. A negotiated limitation on class size, for example, is a readily apparent extension of the definition. But an examination of items currently being suggested as subject to negotiation between teachers and board offers a far greater extension. Policies covering employment standards, inservice training, recruitment, transfer, promotions, communications, grievances, and community support are among the many suggested as being within a proper definition of conditions of work and, hence, negotiable.

For board members, however, the extension of the list of negotiable items to such matters as personnel policies and the school program would require a procedure vastly different from the one they follow when negotiations concentrate only on salaries. And in this extension they see a usurpation of the legal authority of the board and of management prerogatives in the organization.

To the teacher, limitation of the definition of working conditions to economic welfare items seems to be a denial of a most important role. This is the teacher's role as a professional in filling the needs of the schools in a number of areas which influence conditions under which children attend school and hence under which teachers work.

Traditionally, the decision on the "negotiability" of an item has been made unilaterally by the board of education. Can or should this decision process in itself be negotiated?

The local teacher organizations—the AFT and NEA affiliates—are developing as important factors in the formulation of educational policy. Perhaps most significant to the school administrator, they are developing as organizations external to the school system. And as such, these organizations present an "external" structure through which personnel as well as curriculum problems may be directed. In the past, these problems have typically been directed to and solved within the school system's "internal" structure.

2. *What action might follow an impasse between the teachers' organization and the board of education?*

The suggestion that in the event of a persistent disagreement there should be an appeal to a third party is one of the highly significant points upon which the teacher organizations are speaking. To school board members, such a provision appears to be a denial of their role as representative of the public interest. To teachers and their organizations, the request for a factfinding or mediation effort using a "third party" is a necessary part of any effort to settle persistent disagreements which remain after the two parties have conscientiously tried to work

The status of the teacher

A committee of experts met this past summer in UNESCO House, Paris, to discuss the drafting of an international charter of the teaching profession. The gist of what they said was given by their chairman, William Carr of the United States (Dr. Carr is executive secretary of the National Education Association) in an address at the final session:

If I could have only 5 sentences for summarizing our discussion, I would say this:

1) The higher the public respect for the schools, the better the status of the teachers. It is bad for teachers to be underpaid; it is even worse for education to be undervalued.

2) The better the payment and security of teachers, the better their status.

3) The better the preparation and inservice education of teachers, the better the status.

4) The greater the skill of the teacher in the classroom, the better the status.

5) The more united the profession, the better the status of its members.

together. Teachers see such an appeal procedure as a deterrent to and a remedy for arbitrary action by either party.

The courses that can be followed if an impasse between the board and the teachers develops are few. The apparent and traditional one is that the board unilaterally makes a decision. The second is that the teachers, also acting unilaterally, call for a display of force—sanctions. The third is arbitration. But if the teachers' organizations advocate sanctions—either the strike or the withholding of certain professional services—they cannot accept compulsory arbitration even assuming its most unlikely approval by the board of education.

The fourth is the use of a mediatory or third-party procedure, as suggested by the NEA's professional negotiation approach. Presently there are few school systems where the provision for such an appeal has been agreed on by the two parties. Where the provision does exist, the appeal generally is to the State educational agency and/or a lay group at the local level. In these cases, local boards of education have voluntarily established appeal boards, even in the absence of State legislation or any other mandate.

The use of a mediation procedure depends upon the mutual agreement of the board and the teachers. But strikes and sanctions are not dependent upon mutual consent. They result from the unilateral action of the teachers and place them in an advantageous position of strength vis-a-vis the board of education.

The resolutions adopted this year by national organizations representative of boards and of staff reflect the fact that teachers are continuing to advocate mandatory third-party review and board members are continuing to oppose it. Continued advocacy will present a strong deterrent to reconciliation of the opposing positions of the boards and the teachers. Yet, the issue of mandatory mediation is basic to the entire issue of board-staff relationships. If there is to be cooperative determination of policies, surely the provision of some mandatory mediation machinery to reconcile basic disagreements is necessary. On the other hand, if the board is to maintain its "sovereignty," then such mediation becomes difficult to accept.

3. *What is the role of the superintendent?*

Although the discussion above has intentionally ignored the superintendent, the omission is not a slighting one. The proposals currently being made either state or imply that the two parties will be the teachers and their boards. As much as any other individual within a school community, or as much as any group, the superintendent is deeply involved in discussions between the teachers and their boards. But both teacher organizations call for direct face-to-face communications with the board of education. The AFT, as a proponent of collective bargaining, regards the superintendent as the employer at a negotiating session. The NEA position on professional negotiation views the superintendent in a dual role—executive officer of the board and professional leader of the professional staff.

The development of a definition which recognizes both the dual role of the superintendent and the need for direct communication with the board offers a challenge. The superintendent's role needs to be defined just as concisely and clearly for the board as it is for the teachers—and for the superintendent. Rightly or wrongly, this role does not appear to be defined as precisely for "professional negotiation" as it is for "collective bargaining."*

THESE three questions are among the many which must receive early and deep attention by those individuals and organizations intimately concerned with improving relationships between teachers and their boards. Each is directly concerned with the requests by the teacher organizations for much more highly formalized procedures of collective negotiation, for this formality to be adopted in written form, and for State legislation which will mandate the right to such formal procedures.

The issues involved in this formalization are several, including:

1. The appeal to a third party.
2. The role of the superintendent.
3. The definition of the negotiable areas.

The period immediately ahead will probably see the several educational organizations involved devoting an increasing amount of attention to these and other related issues. With the exception of those communities which have been directly involved in such actions as strikes or sanctions, however, the discussions to date have not appeared to make a strong impression upon the general public.

*The original NEA professional negotiation resolution, proposed in 1962, did not use the word "superintendent." The 1964 Seattle meeting did amend the resolution so that the term now appears in the resolution.

Census surveying 3- and 4-year olds in school

The October "Current Population Survey" of the Bureau of the Census includes, at the request of the Office of Education, questions on the school attendance of 3- and 4-year old children. The information the Bureau obtains will furnish the first nationwide data on the attendance of children of these ages in public and nonpublic nursery schools and day-care centers. The enrollment figures will be classified by the occupation and income level of the head of the family to determine whether the children who most need educational experiences at an early age are those least likely to have them.

Many educators believe that the education of children in impoverished and culturally deprived homes is one of the most promising ways to develop favorable attitudes toward regular schools in both pupils and parents. Early education may also prevent reading disabilities, reduce the number of dropouts, and delinquents.

Libraries for Technical Education Programs

WALTER J. BROOKING and MARY HELEN MAHAR

A GOOD SCHOOL LIBRARY is essential to the development of a successful technical education program. As more and more of the Nation's school systems are offering programs designed to train highly skilled technicians and to upgrade and update the scientific and technical knowledge and skills of persons employed in the fields of applied science, the importance of the library is being widely recognized. The highly skilled technician is becoming an essential member of the scientific and management team in research, development, production, and services—along with professional scientists, engineers, and skilled production and laboratory workers. (At present the ratio of technicians to scientists or engineers is one to one, but the trend is toward two or more to one.) As a member of the team the technician must not only be well trained but also know how to keep informed about changes in his field.

Because of the vast increase in scientific knowledge in the last few years, many recently graduated scientists and engineers have had little laboratory instruction and are working now more as theoretical scientists than they did in the past. Their lack of experience leaves a vacuum in the field of applied laboratory knowledge that technicians are beginning to fill. Such technicians are being trained in carefully designed technical education programs.

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Miss Mahar is coordinator of School Library Services in the Library Services Branch of the Division of Library Services.

Technical education programs provide for instruction in scientific principles and supporting mathematics and in laboratory techniques and for opportunities for the student to acquire knowledge of the principles of applied science and of hardware, processes, procedures, techniques, materials, and modern measuring and control devices. They also train the student in the art of communicating with the scientist or the engineer, and they prepare him to become the scientist's or engineer's delegate and assistant. Such courses are generally designed for 2 years of intensive post-high school study.

The courses most commonly offered in technology include electronics, mechanical design and production, instrumentation control, civil and construction technology, chemistry, metallurgy, and medical laboratory and dental laboratory technology. The outlook is for more programs in nuclear, oceanographic, and agricultural and health-related technologies.

Several types of schools offer technical and related vocational education programs, but the greatest growth is taking place in junior colleges, community colleges, technical institutes, and area vocational and technical schools. Technical and comprehensive high schools also offer technician programs, and their programs in technical and related vocational education are of great importance since they prepare students to enter advanced programs.

Federal support, notably under title VIII of the National Defense Education Act, has encouraged the growth of technical schools. This act provides funds, to be matched by the States, for the purchase of laboratory equipment and materials needed in training technicians, for salaries of teachers, and for other services. Between 1958, when the act went into effect and 1963, the enrollment of full-time students in technical education programs rose from less than 20,000 to over 75,000 and the number of schools offering programs, from 260 to over 700.

The Congress, in the Vocational Education Act of 1963, makes permanent the provisions of title VIII for training technicians, provides for increased funds, and opens up the program to greater numbers of people of all ages. Payments for materials, salaries, and in some cases even cost of construction of library buildings are reimbursable under the act if they serve vocational and technical programs. These provisions underscore an important fact: The minimum standards of excellence for programs of technical training require that good libraries be available to the students and teachers.

LIBRARY content, organization, and services for technical education programs must meet the special requirements of the staff and students the library serves. For that reason requirements will vary from school to school. In vocational and technical schools and institutes, libraries will provide materials on the scientific, technical, communications, and social science subjects emphasized in the curriculum. In the comprehensive high school or junior or community college the library should include the materials required by the general education and college preparatory or college transfer programs as well as scientific and technical materials.

How the library organizes its material is less important than *what* it contains and *how often* and *how well* the material is used. The library will be of no service to the technician training program if it does not contain a minimum of the scientific and technical books, references, periodicals, journals of scientific and technical societies, and visual aids necessary to keep teachers and students abreast of changes in applied science in keeping

with the school's objective. How well the students use library materials depends as much on the instructors as on the librarians.

Learning to use the library is important to the study habits of the technical student, and his instruction should be so oriented toward the library that he may learn the importance of knowing where to find information on any course he is studying. Moreover, knowledge of the library will help the student develop professional attitudes and the habit of depending on libraries to keep informed of changes in his field.

Instructors should constantly make the student aware of the extent to which a library contains information necessary to his study. Some assignments should require the student to consult the library for information so that he may become familiar with the resources available. Openbook examinations requiring the use of the library provide excellent and objective experience for the student, for the time limit set by the examination helps the student assess his competency in library skills. The growth and success of the graduate technician will depend in large measure on his ability to keep abreast of the changes in his field. After he is employed as a technician he will be expected to obtain information for himself without supervision and must therefore be experienced in using a library. The best place for him to gain experience is in a centralized library.

A central library under the direction of a professional librarian contributes much to success in teaching technological courses. It insures the acquisition and cataloguing of the library content according to accepted library practice and provides the mechanics for locating reference materials by the use of systematic card catalogs and indexes. A central library also provides the mechanics for acquiring material on an interlibrary loan in a controlled and orderly manner typical of the libraries the student will use after he leaves school and is employed.

ADMINISTRATORS, instructors, and librarians interested in evaluating the school program will find in the qualifications of the librarians; and the physical facilities; the quality, quantity, pertinency of content; and the organization of the library many tangible indications of the program's strength. These characteristics may be measured by the standards set by the American Library Association in *Standards for School Library Programs,* for high school libraries (also deals with elementary school libraries); *ALA Standards for Junior College Libraries;* and *ALA Standards for College Libraries.* These publications will be of particular value to the administrators, teachers, and librarians of schools offering technical education programs. They provide quantitative and qualitative information on staff, materials, facilities, services, and budgets.

Standards for School Library Programs gives special attention to libraries in technical schools by this statement:

"Libraries in vocational, technical, and other schools having specialized curriculums of this nature may need an annual budget larger than that noted. [See p. 12 for discussion of budget.] Over and beyond the acquisitions for the general collections in the school library, special technical and scientific materials must be purchased. Books in these areas are usually more expensive than fiction or general nonfiction, and tend to become outmoded more quickly and must be replaced more frequently. Magazines in the special fields must also be obtained as well as any special periodical indexes that are needed." [1]

Standards for Junior College Libraries is applicable to the libraries of 2-year post-high-school technical institutes. In stating the purpose of the junior college library standards, technical schools are included as follows:

"These standards are designed to provide a guide for the evaluation of libraries in American two-year colleges. These institutions offer a great diversity of programs; many of them are terminal, others prepare for eventual transfer to four-year colleges. Included in this group of two-year colleges are junior colleges primarily concerned with the liberal arts and limited in their vocational aims; community colleges endeavoring to serve in their areas a variety of educational purposes by a combination of programs; and technical institutes emphasizing vocational aspects in their curricula. For the sake of convenience, the term 'junior college library' is used throughout to describe libraries in all these institutions." [2]

The standards developed by the American Association of School Librarians recommend that the school have 1 librarian for each 300 students and 1 librarian for each additional 400 students. The standards also recommend that the school have 1 library clerk for each 600 students.

The standards of the American Library Association for Junior Colleges recommend that the junior college library have two professional librarians and 1 nonprofessional staff member for an enrollment of up to 500 students. The standards also recommend that care be taken to see that professional staff members do not spend their time doing clerical work.

A school is particularly fortunate if its librarians are also subject-matter specialists because their special knowledge adds to their effectiveness.

TO SERVE the instructional program most efficiently, the library in the technical school should be a materials center, including in its collection all the types of printed and audiovisual materials and equipment that teachers and students need. The philosophy that a library functions

[1] American Association of School Liraries, *Standards for School Library Programs,* American Library Association, 50 E. Huron St., Chicago, Ill., 60611.

[2] American Library Association, "ALA Standards for Junior College Libraries," *College and Research Libraries,* XXI: 200, May 1960.

best as a materials center is as valid for schools of technical education as it is for high schools and junior colleges. In a materials center teachers and students can locate and select books, journals, films, tapes and other materials on a particular subject or unit and use them in relationship with one another. The administration of the library as a materials center unifies and simplifies the selection and organization of materials and is more economical than maintaining several centers of materials.

The organization of the library as a materials center does not exclude classroom or department collections. Because demonstration and laboratory experiences are so integral and important a part of teaching technical subjects, teachers and students must have selected key reference materials in the classroom and laboratory. Some schools have special rooms attached to departmental suites to house library materials and to furnish space for their use. Books and other materials can be added to or replaced as units of study change and, with the aid of central library circulation records, can be used at various times in different places in the school.

It is good practice to purchase such materials from the regular school library budget rather than from departmental allotments. A single library budget for all materials, whether they are shelved in the library, classrooms or department libraries is more economical and efficient than a number of small accounts for materials.

Courtesy Erie County Technical Institute
Buffalo, New York

The library of Erie County (N.Y.) Technical Institute, shown here, with a well-qualified staff and up-to-date facilities, has an important influence on the school program. The institute is preparing 2,000 full-time post-high-school students for technical occupations.

BOOKS for a technical library should be selected by a special committee, appointed by the administrative officer of the school, with the head librarian as chairman. The administrator should give the committee special encouragement, particularly if the school is new, the library understaffed or understocked, or if the school is adding new technological courses to the program. The librarian, following the recommendations of the committee, administers the library budget, initiates library committee action, supplies authoritative and reliable book lists, and orders the books selected. The final selection of books, technical and trade journals, and visual aids to be ordered for the library should be made with the cooperation of the department heads and teaching staff. If teachers do not have a part in the selection they may not be in sympathy with the materials selected or be fully aware of the references the library contains.

Guides to the acquisition of up-to-date and pertinent reference and teaching materials, including visual aids, should be available in the library. Teachers and library staff members are required to maintain constant vigilance to be sure they are using the most recent and authoritative library material. Inter-library loans and information from documentation services, valuable as supplementary materials, will help to keep both faculty and student body supplied with current materials on new developments. Several publications, distributed by the Technical Education Branch of the U.S. Office of Education, recommend guidelines and specific materials in relation to curriculum (see list in box below).

Good technical school libraries are expensive. A good library for a school with a thousand students contains at least 20,000 current books of good quality pertinent to the program. The average cost is approximately $11 a volume. The American Association of School Librarians recommends that the annual budget allowances for materials in vocational and technical school libraries be higher in technical libraries than in libraries in regular high schools.

The American Library Association recommends that, for the junior college, "the library budget should be determined in relation to the total budget of the institution for educational and general purposes, but the amount to be allocated to the library should be based on a program of optimum library service in support of the junior college's goals. The execution of the library program as it is outlined in their standards normally requires a minimum of 5 percent of the total educational and general budget. This minimum percentage is for a well-established library with an adequate collection. It would have to be augmented if there is a rapid increase in the student body or in course offerings; it would again need to be increased if the library is responsible for an audiovisual program. The library budget for a newly organized institution should be considerably higher than 5 percent." [3]

LIBRARY FACILITIES for technical schools should, of course, be planned according to established principles for all types of school libraries. Some of the publications listed in the bibliography below contain detailed specifications for school libraries. Teachers and librarians should be included in the planning of new buildings or the remodeling of old ones. To make the library truly functional, planners should design buildings to meet the needs of the curriculum and the organization of the school. Plans for the library are not complete, however, unless they include specifications for shelving and equipment for classrooms.

The design of the library for a technical school should include plans for not only the technical materials, but also a broadly representative collection of general materials. In schools offering mostly vocational and technical subjects, the library can in some measure compensate for the necessary limitation of courses in the liberal arts.

Libraries should include reading rooms that are attractively furnished, suitably lighted, and free from outside distractions. They should also include rooms for the storage and use of audiovisual materials, a classroom for instruction in library techniques, a room for housing professional materials with space for their use, a librarian's workroom, and a librarian's office.

The library in a technical school should be geared to service, in both hours and regulations. It should be open all day, every school day and, if service is needed, during the evening and on weekends. Moreover opportunities within the school day should be provided for students, either individually or in groups, to go to the library to work on specific assign-

Guidelines distributed by the Office

These publications, prepared by the Technical Education Branch of the Office of Education, recommend guidelines and specific materials in relation to technology curriculums. They are for sale by the Superintendent of Documents, Government Printing Office, Washington, D.C., 20402.

Chemical Technology: A Suggested 2-Year Post High School Curriculum, in press (OE–80031).

Electrical Technology: A Suggested 2–Year Post High School Curriculum, 75 cents (OE–80006).

Electronic Data Processing—I: A Suggested 2-Year Post High School Curriculum for Computer Programers and Business Application Analyses, 40 cents (OE–80024).

Electronic Technology: A Suggested 2-Year Post High School Curriculum, 70 cents (OE–80009).

Mechanical Technology—Design and Production: A Suggested 2-Year Post High School Curriculum, 70 cents (OE–80019).

[3] American Library Association, "ALA Standards for Junior College Libraries," *College and Research Libraries*, XXI: 200-201, May 1960.

ments requiring library materials or to browse. It is also essential that teachers have time to visit the library, to confer with librarians, and to examine and use library materials.

Library regulations should be flexible. Teachers of technical subjects may require some materials for longer periods of time than usual for classroom use or for reservation in the library. Technical curriculums are rigorous and usually require up to 2 hours of outside study for every class lecture hour. For this reason, sufficient reference books should be available to permit students to check out for home study, and library regulations should encourage the use of reference materials.

THE ULTIMATE PURPOSE of a book or reference is, as we have said, *to be used*. Unless a book or other reference work contains timely and pertinent information, unless it is *read*, it is of no service and is only a waste of resources. Library regulations and philosophy, therefore, should point the way toward the maximum use of the materials in the library. Only then will the library really serve the purpose for which it is established.

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The Civil Rights Act of 1964
Desegregation in Public Education

Speeding and easing the course of desegregation in U.S. public schools are among the objectives of the Civil Rights Act of 1964. The U.S. Commissioner of Education under titles IV and VI of the act and the Attorney General under title IV are empowered to work, within clearly defined limits, for the accomplishment of these objectives.

Title IV requires the Commissioner to conduct a survey of public education at all levels to determine the extent to which equal opportunity in education is denied to U.S. citizens because of race, color, religion, or national origin. The Commissioner is to report his findings to the President and the Congress within 2 years.

Title IV takes into account the skills and efforts that desegregation of schools requires of persons most directly responsible—officials of public schools, colleges, and local and State governments—by providing assistance for officials who request it.

The Commissioner is authorized to give them technical assistance in making or carrying out their plans for desegregation; he may provide them with information on effective methods of coping with desegregation problems or make available persons specifically equipped to advise or assist them. In addition, he is authorized to arrange, through grants or contracts with colleges and universities, for the operation of institutes for training staff members of public schools to deal with educational problems occasioned by desegregation. The Federal Government will bear the cost of the institutes and pay the stipends for persons who attend full time.

The Commissioner is also authorized to make grants to school boards for their use in organizing such training institutes or in hiring specialists to assist with desegregation.

Title IV does not, however, authorize assistance for correcting racial imbalance in schools.

Under title IV the Attorney General has the power to initiate civil suits against school boards which deny a child equal protection under the law and against authorities of public colleges which prevent any person's enrollment for reasons of race, religion, color, or national origin. Strict boundaries are drawn, however, on the Attorney General's powers. Among the most important qualifications of his authority are these: The complaint of discrimination must originate with the pupil, his parents, or a group of parents; the Attorney General must believe that the complaint is justified; and he must certify that the signers of the complaint are unable to initiate or maintain legal proceedings themselves for such reasons as expense and jeopardy to personal welfare.

Title VI provides that no person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, or denied the benefits of, or be subjected to discrimination in, any program or activity receiving Federal financial assistance. Agencies of the Federal Government which extend assistance in virtually any form are directed to put this provision into effect—if necessary, by discontinuing Federal assistance to any program or activity in which discrimination exists. The legislation stipulates that the regulations for carrying out this provision must be approved by the President in order to become effective. It also stipulates a waiting period before funds can be withheld, provides for an opportunity for a hearing, and sets forth the requirements for judicial review. Voluntary compliance, rather than the discontinuance of Federal aid, is the aim of the title.

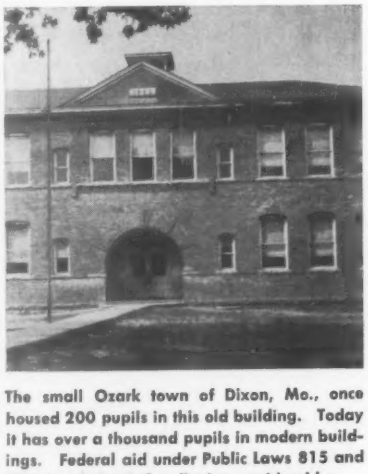
New Schools in Federally Affected Areas

LESS THAN 15 years ago Douglas, a one-room school near the village of Box Elder, South Dakota, had 19 pupils. Today Douglas—grown to three elementary schools and a high school—has over 3,000 pupils and is the sixth largest school district in the State. The story of why and how Douglas has grown is perhaps a classic example of the need for and the effects of the program of Federal aid to school districts authorized by Public Laws 815 and 874. These laws, administered by the U.S. Office of Education, provide assistance for the construction and the maintenance and operation of schools in districts unduly burdened by Federal activities in or near them. School districts are eligible for assistance if they provide free public education to a substantial number of children with parents working or living, or both, on Federal property or working for a private plant under contract to the Federal Government in the vicinity of the school district.

Douglas qualifies for assistance under these laws because the parents of most of its pupils live or work at nearby Ellsworth Air Force Base, established by the U.S. Air Force in 1950. Within a year after the base was established Douglas had 500 prospective pupils at its door—and space for 25. Two years later it had places for all these pupils. But Douglas' problems were not solved once and for all, for the school-age population has continued to increase, has doubled and redoubled, and so have the needs of the school.

Douglas, with an assessed value of less than $200,000, could never meet the demands made on it by taxation or bond issues. It can only provide about $7 a year for each child. The yearly expenditure for current operating expenses in South Dakota for each pupil is $320. Obviously, without special help Douglas would not be meeting its responsibility.

In 1949 Douglas school had 19 pupils in the one-room school house shown here. Today, Douglas is the sixth largest school district in South Dakota with over 3,000 pupils. It has three elementary schools and a high school, built and operated with substantial Federal aid under Public Laws 815 and 874.



The small Ozark town of Dixon, Mo., once housed 200 pupils in this old building. Today it has over a thousand pupils in modern buildings. Federal aid under Public Laws 815 and 874 has helped the district considerably.

Douglas' first new school was built on the air base by the Federal Government in 1952 at a cost of $885,000, all of it from Public Law 815 funds. Since then it has built three more schools, all with substantial Federal aid. The district also receives about four-fifths of all funds used for maintenance and operation of its schools each year from Public Law 874 funds. In the first 10 years this district has received about $4 million for maintenance under Public Law 874.

Throughout its years of growth Douglas has remained an independent school district operating under the laws of South Dakota.

DOUGLAS is only one of many school districts receiving Federal aid under Public Laws 815 and 874. Another example is the Fort Leavenworth, Kansas, school district. In 1949 the district ran a school for 400 children in a converted warehouse. Today it has about 2,000 pupils housed in modern school buildings. The school population began to increase in 1949 because the U.S. Army chose Fort Leavenworth as the site for its Command and General Staff School. The activation of the base brought in hundreds of military men and civilian employees and their families to work and to live on the installation.

The Fort Leavenworth school district is unique in that it was created by a special act of the Kansas legislature. All of the children live on the base. Buildings in the district are named for notable military men: Douglas MacArthur, Dwight D. Eisenhower, and Omar Bradley. At one time, by coincidence, two of President Eisenhower's grandchildren attended the school named for him.

The Federal Government has borne all construction costs and has provided well over half of the operating funds under Public Laws 815 and 874. The district superintendent says that Federal aid has made it possible to "provide the children of these military

Material for this article was supplied to School Life *by representatives of the Office of Education in region VI, Kansas City: Lee McDonald, R. A. Harper, and G. H. Smith.*

Belton, Mo., a suburb of Kansas City has grown by leaps and bounds because of the location of Richards-Gebaur Air Force Base in its vicinity and the influx of former city dwellers. The district has built several up-to-date schools, partly with Federal aid. The one shown above is the new junior high school built at a cost of $186,462. The Federal Government contributed $46,426 toward the construction.

Two grandchildren of President Eisenhower once attended this school, named for him, at Fort Leavenworth, Kans. General Eisenhower School is one of several schools built at Fort Leavenworth with Federal aid. All of the schoolchildren in the district live on the base, the site of the Army's Command and General Staff School.

families a free public school education comparable in every way to Kansas schools of similar size."

The educational adviser to the Command and General Staff College, who is treasurer of the school board, also praises the program. "My dealings with both State and Federal officials," he told an Office of Education representative, "in conjunction with the 874 and 815 program have been most satisfactory. I have found all concerned to be interested in the welfare of our children and in providing an educational program suitable to the times and in consonance with the intent of the legislation. Although more than $5 million in Federal funds have been paid to the district, there has never been an instance in which any Federal official has endeavored to invade our right to local control of our schools."

DIXON, Missouri, a small town in the foothills of the Ozarks, has a similar story to tell. In 1949 it had about 200 pupils housed in an old building which was considered unsafe but which "had to do." With the reactivation and expansion of nearby Fort Leonard Wood Military Reservation that year, Dixon became responsible for the education of over a thousand boys and girls.

The district already had a bonded debt of $14,000. The board of education, however, proposed a bond issue up to the legal limit, which, when approved, enabled the district to build an elementary school containing two classrooms, restrooms, and a heating system. Three additions have been made to this building, all with the help of Federal funds under Public Law 815.

In 1959 the district built a new high school with $200,000 in local funds and $100,000 in State funds (for which it had become eligible because of the reorganization of 38 school districts). Before the year was out it enlarged the new building with Federal funds. The district also receives about one-third of its operating funds each year from Public Law 874.

THE SCHOOL SYSTEM of Belton, Missouri, a suburb of Kansas City, has grown by leaps and bounds because of the migration of city dwellers and the establishment of an air base (Richards-Gebaur) in its vicinity. Under normal circumstances the district could meet its obligation, but the presence of the air base burdens the district beyond its ability. Not only has the base brought in many children, but the land it occupies represents a loss in taxes to the community.

Belton has met its responsibility with the assistance of the Federal Government. It has built several elementary schools and a high school.

Belton operates a fully accredited school program under the laws and regulations of Missouri. The State Department of Education has high building standards and closely supervises instructional programs in each district. Belton high school has received a triple "A" rating, the highest the State gives. The district also conducts a kindergarten, although the State makes no financial provisions for education at this level.

These stories are similar to hundreds of others that could be told. The school assistance program operates in the 50 States, Puerto Rico, Guam, the Virgin Islands, and Wake Island. It has only one purpose—to help school districts build and maintain school buildings whenever the presence of a Federal activity taxes a district beyond its resources. The district remains at all times in full control of the content of the program it offers.

Statistic of the Month

Rate of enrollment rises

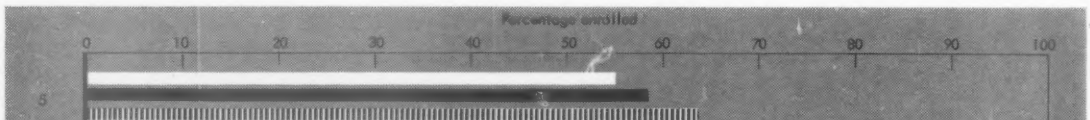
AT EVERY AGE LEVEL, school enrollment in the United States has been increasing steadily over the years. The increases in the 15-year period ending in October 1963 are shown in the percentages of the several school-age groups who were enrolled in school or college at the end of each 5-year interval:

Age group	*1948* %	*1953* %	*1958* %	*1963* %
5-year-olds	55.0	58.4	63.8	67.8
6- to 13-year olds	97.9	99.1	99.2	99.1
14- and 15-year olds	92.7	96.5	96.9	98.4
16- and 17-year olds	71.2	74.7	80.6	87.1
18- and 19-year olds	26.9	31.2	37.6	40.9
20- to 24-year olds	9.7	11.1	13.4	17.3

The greatest gains took place among the youngest and the oldest—among the 5-year-olds and among the 16- to 24-year-olds. The large increases among the youngest reflect the steady growth of kindergartens throughout the country; the large increases among the oldest reflect the fact that larger and larger numbers of young men and women, both white and nonwhite, are graduating from high school and entering and graduating from college.

As the following tabulation shows, the percentage of the civilian noninstitutional population between 5 and 34 years who were in school in October 1963 was about the same among nonwhites as among whites. (Data are from the Bureau of the Census, *Current Population Reports*, Series P–20, No. 179, July 24, 1964.)—Rose Marie Walker, educational statistican, Office of Education.

Color and age	Total population	Number enrolled	Percent enrolled
WHITE	*(In thousands)*	*(In thousands)*	
5 years	3,507	2,432	69.3
6 years	3,497	3,431	98.1
7 to 9 years	10,155	10,107	99.5
10 to 13 years	12,536	12,444	99.3
14 and 15 years	6,023	5,932	98.5
16 and 17 years	5,772	5,067	87.8
18 and 19 years	4,399	1,805	41.0
20 and 21 years	4,473	1,170	26.2
22 to 24 years	5,767	701	12.2
25 to 29 years	9,228	477	5.2
30 to 34 years	9,612	249	2.6
Total White	74,969	43,815	58.4
NONWHITE			
5 years	593	346	58.3
6 years	588	559	95.1
7 to 9 years	1,689	1,663	98.5
10 to 13 years	1,999	1,989	99.5
14 and 15 years	903	881	97.6
16 and 17 years	777	637	82.0
18 and 19 years	644	256	39.8
20 and 21 years	612	99	16.2
22 to 24 years	794	44	5.5
25 to 29 years	1,251	41	3.3
30 to 34 years	1,275	26	2.0
Total Nonwhite	11,125	6,541	58.8



Percentage of U.S. population enrolled in school, by age group, 1948, 1953, 1958, and 1963

The Economics of Training the Unemployed

LEROY A. CORNELSEN

ANOTHER STUDY has produced evidence that money spent on education is a sound investment.

The study has been made by the Office of Education, using a sample drawn from the entire population of persons who, within 2 years after the enactment of the Manpower Development and Training Act of 1962, received occupational training under the act. The sample included nearly 13,000 persons—more precisely, 12,696.

Before the act was passed, most of these persons had little hope of finding a good job with prospects for advancement. At the time they were referred to vocational schools for training, all were unemployed. One out of every three, or 4,190 trainees, was eligible to receive unemployment benefits. Assuming that the trainee was like the average claimant of unemployment compensation, who gets $34.72 a week for 13.1 weeks, we can estimate that the continued unemployment of these 4,190 persons alone would have cost the public nearly $2 million a year. In addition, 1,015 of the trainees, or 8 percent, were receiving public assistance: 670 were in families receiving an average of $150 per month under the federally supported program of Aid to Families with Dependent Children; 345 were in families receiving an average of $80 per month under other public programs of assistance. Public assistance on this scale to this many would, in a year's time, amount to more than $1.5 million; add to it the unemployment compensation, and the total reaches $3.5 million.

None of the 13,000 were able to put anything back into government treasuries in the form of income taxes. Having little money to spend and few if any of the skills currently in demand, they could do little to help the private sector of the economy either, and were in the unhappy situation of being a drag on the Nation all around.

Under the Manpower Act these persons were trained for work in high demand in their States—as machine operators, clerks, typists, stenographers, auto mechanics, nurses aides, sewing machine operators, welders, practical nurses, and assembler-solderers.

The cost of training was considerable. The States' estimates of the instructional costs alone—for such things as salaries for instructional, supervisory, and custodial staffs; instructional supplies; and equipment—totaled $8 million, or $631 per trainee; but we have found that the early estimates, on the average, were 20 percent higher than the actual costs, and we are therefore closer to the facts when we estimate these costs to be $6.4 million.

In addition, training allowances were paid to the 66 percent who were eligible to receive them. (Those eligible are heads of households who have been unemployed previously for 3 years, a period now changed to 2 years; and farmers earning less than $1,200 a year. The amount varies from State to State; it is equal to the amount paid in the State for unemployment benefits.) Since the average amount received was $35 a week, and the average training period at the time of the study was 21 weeks (the average trainee entering the program now, because of his greater need for

Budget estimates of educational costs for a sample of persons receiving training under the Manpower Development and Training Act of 1962 during the first 2 years the act was in effect, and the average wages at that time in the occupations for which these persons were trained

Occupations [1]	Number of trainees in the sample	Estimated educational costs [2]			Wages [3]	
		Per hour per trainee	Total per trainee	Total, entire sample	Average hourly	Average annual
Machine operator	1,226	$1.08	$1,156	$1,417,256	$2.62	$5,450
Clerk, typist, stenographer [4]	3,500	.62	460	1,610,000	1.69	3,515
Auto mechanic	1,441	1.15	1,390	2,002,990	2.53	5,262
Nurse's aide	1,579	.63	113	178,427	1.30	2,704
Sewing machine operator	1,442	1.08	166	239,372	2.03	4,222
Welder-all	1,586	1.10	700	1,110,200	2.38	4,950
Practical nurse	1,304	.57	1,035	1,349,640	1.47	3,058
Assembler-solderer	618	1.02	163	100,734	2.07	4,306
Totals and averages	12,696	.91	631	8,008,619	2.01	4,180

[1] Occupations for which these persons were being trained were the ten for which MDTA programs had the largest enrollments.

[2] Estimated by the Department of Health, Education, and Welfare on the basis of early estimates submitted by the States.

[3] Averages, as reported by the Department of Labor in *Occupational Outlook Handbook 1961*.

[4] For the purposes of the study, these three occupations were combined in one category.

Mr. Cornelsen, who conducted the study he reports on here, is specialist in vocational education, Programs Operations Section, Manpower Development and Training Program, Office of Education.

basic education, requires a longer training period and is getting 35 weeks), the training allowances for our 13,000 persons were estimated at $6.3 million.

Transportation and subsistence allowances were also part of the cost. These were paid to the 7 percent of the trainees who lived too far from the place of training to commute. The maximum subsistence allowance is $35 a week at the rate of $5 a day, and the maximum transportation allowance is 10 cents a mile: the total cost for those in our study was estimated at $653,000. Counting all these items, the total training cost for the 13,000 was $13.3 million, or $1,045 for each trainee.

WHAT RETURNS did this investment yield? The full returns can never be measured, not even if we could follow each of the 13,000 to his last day on a job, but we can at least consider the immediate returns from the standpoint of the wages earned when they went to work.

Of those completing their training (2 out of 10 dropped out), 70 percent or 7,111 persons, found jobs immediately; most of the other 30 percent were placed later. Our measure of the monetary returns on the investment is based on the earnings of those who went to work immediately; our measure of the training costs is based on all 13,000 trainees.

At the time the 7,111 went to work the average hourly wage for the occupations in which they were trained was $2.01. In 24 weeks, then, they earned $13.7 million; in that brief time, through the taxes they paid and the goods and services they bought, they returned to the economy an amount somewhat higher than the $13.3 million it cost to train the entire group of 13,000.

The returns can be expressed in many other ways. For example:

- In Federal income tax alone—assuming $220 at the 1964 rate for an average annual income of $4,180 and a family of 4—the trainee will repay the cost of his training in 5 years.
- In only 1 year of employment the average trainee can be expected to earn $4,180, or $3,135 more than it cost to train him.
- An investment of $13.3 million in training is expected to result in gross earnings of over $148 million in 5 years.
- Every dollar spent in training the group should return $2.24 a year in gross earnings.

Not only did these persons earn enough to make the public's investment worthwhile, but they were able to remove themselves from the relief rolls. What they would otherwise have cost in unemployment compensation and public assistance is another item we must include in our balance sheet as we attempt to put a dollar measure on the worth of vocational training.

Advisory Committee Appointed for Vocational Act

The Commissioner of Education has appointed a 12-member national advisory committee for the Vocational Education Act of 1963. The members of the committee have been selected from labor, management, education, and the general public. Their names and positions are these:

Ralph M. Besse, president, Cleveland Electric Illuminating Co.

Fred M. Betz, Sr., publisher and owner, *Lamar* (Colo.) *Daily News*, and chairman, Colorado State Board for Vocational Education

Mrs. Barry Bingham, vice president, *Courier-Journal* and *Louisville Times*

Nelson Jack Edwards, international representative, United Auto Workers

Alton D. Ice, executive secretary, Vocational Agriculture Teachers Association

Paul F. Johnson, superintendent, Iowa State Department of Public Instruction

J. W. Letson, superintendent, Atlanta (Ga.) Public Schools

William G. Loomis, director of vocational education, Oregon State Department of Education

M. D. Mobley, executive secretary, American Vocational Association

Peter T. Schoemann, president, United Association of Journeymen and Apprentices of Plumbing and Steamfitting Industry, AFL–CIO

Julius Adams Stratton, president, Massachusetts Institute of Technology

Whitney Young, executive director, National Urban League

In addition, these representatives of Federal agencies will serve on the committee: James L. Sundquist, Under Secretary of Agriculture; John C. Donovan, Manpower Administrator, Department of Labor; William L. Batt, Jr., Area Redevelopment Administrator, Department of Commerce. The Commissioner of Education will serve as chairman of the committee, as specified by the act. He will call the committee at least twice a year.

The committee will advise the Commissioner on the preparation of general regulations for the act and on policy questions about it and other vocational education programs established by Federal law.

The Vocational Education Act of 1963 authorizes a 4-year program to improve existing vocational education programs, to develop new programs, and to provide work-study programs for persons needing income to continue full-time vocational training. The act also provides support for area and residential training schools, research, and teacher training.

Under Public Law 88–605 (Department of Labor, and Health, Education, and Welfare Appropriation Act, 1965), signed into law on September 19, the Congress appropriated $5 million for the work-study program and $118.5 million for the other provisions of the Vocational Education Act of 1963.

First-Grade Reading Under Scrutiny

DORIS V. GUNDERSON

THE FIRST large-scale cooperative study of the teaching of reading is being supported by the Cooperative Research Program. Since a number of the cooperating researchers will compare the various methods of the teaching of reading, the study may settle some of the controversial questions that are disturbing both laymen and educators.

The study is the first that has involved children and teachers from all sections of the country and that has used the same tests and evaluative measures in several hundred classrooms. More than 26,000 children and 800 teachers are participating.

During the winter of 1964 the Cooperative Research Program invited proposals for research studies on first-grade reading instruction, each study to be conducted at a cost of no more than $30,000. Of the 76 proposals received, 27 were approved.

Directors of the 27 projects met for 3 days in June to discuss common problems, agree on the analysis to be made and the data to be collected, design data sheets, and suggest any feasible modifications of individual investigations which would increase the usefulness of the data.

All the studies have some features in common. Variables such as class size, the number of visits project directors make to participating classes, and teacher preparation and experience are controlled as closely as possible. The same tests are used in all projects; they include reading readiness tests, tests of mental ability, and tests of word elements and visual discrimination to be given at the beginning of the school year. At the close of the year's instruction, tests will cover reading achievement, oral reading, pronunciation, and attitudes. Other information will be collected on the characteristics of pupils, teachers, classes, schools, and communities.

Despite the common features, each of the 27 studies is an entity in itself and could be carried on independently of the others. In addition to the data each study will produce for the common pool, it has its own hypotheses. No two studies are alike, although a number of them deal with similar topics. Among the areas being investigated are methods and materials, development of reading readiness, teaching reading to children for whom English is a second language, approaches to word study, teaching reading to children from culturally disadvantaged backgrounds, and teacher effectiveness.

A number of the studies in the first-grade reading project are concerned with a comparison of several teaching methods.

The basal reader method is being compared with other methods in two-thirds of the studies. Basal reading series present a comprehensive program which combines features of all methods and covers the period from the first grade (or from the time the child is ready to begin reading) through the sixth grade. The series include teachers' manuals for the various grade levels as well as supplementary materials.

In the language-experience method the child learns to write as he learns to read. He begins by telling stories which the teacher transcribes for him to read and copy. As his writing ability improves, he writes the stories himself and reads those written by other children.

The initial teaching alphabet (ITA) is being investigated in five studies. This method, which utilizes a 44 character alphabet, has been used primarily in Great Britain. Each sound is represented by one symbol only.

In the linguistic method the sound-symbol relationships in words is the focus of attention. In the beginning reading stage the method stresses the pupils' learning to discriminate between sounds, based upon mastery of sound-symbol relationships of spoken language as expressed in spelling patterns. Pupils are introduced to words conforming to specific spelling patterns and they learn to master them. The method emphasizes pupils' mastery of the spelling pattern rather than their learning specific words.

One study will investigate the effect on children of interactions between the published reading program, the teacher's understanding and use of that program, and the various characteristics of the pupils. If the optimum conditions under which particular groups of children learn to read can be determined, instruction should become more efficient.

Another study will test the assumption that if potential problem readers could be identified in first grade, the problem could be overcome by the use of the right techniques and materials during the readiness and early reading periods. In this study all the children who have been placed in a low reading group on the basis of tests will be divided into seven groups and each will receive instruction in one of seven methods of readiness training. The readiness program will continue for the first half of the school year; then all seven groups will begin basal reading at the same time.

The length of a readiness program has been a matter for debate, and a number of the projects will gather information that may help to resolve it. The purpose of one project is to determine the effect of an intensified and extended readiness program upon the reading achievement of first

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graders. Over 1,900 children are to be tested and evaluated in visual perception, auditory discrimination, and auditory language skills at the beginning of the school year to determine their readiness for reading. The control group will follow the usual procedure—a period of instruction to develop readiness followed by basal reading instruction. In the experimental group, some pupils will begin reading by mid-September. Those not ready will receive 2 months of instruction to get them ready, and then all children will be tested again. Children showing readiness at that time will begin reading; the others will continue with the readiness program. Similar testing will be done at the end of 4 and 6 months. At the end of 6 months all pupils will be given the readiness test again, and any children who have not begun reading will then be introduced to it.

VERY little research has been done on how to teach reading to children who speak a foreign language at home and come to first grade with no knowledge of English. For these children, the usual assumptions—that first-grade pupils have a basic English listening and speaking vocabulary, an understanding of English sentence patterns, and reasonably accurate pronunciation of English words—cannot be made.

In one study involving approximately 1,000 students, 90 percent of whom speak Spanish at home, various types of readiness programs are compared. One group gets intensive instruction in Spanish, in speaking and listening. Another group receives the same type of instruction in English, and a third group gets the readiness instruction currently being used in the schools. Results should indicate the most effective type of instruction to use with children for whom English is a second language.

In another project children who speak Spanish at home but attend school with children from English-speaking homes are taught by teachers using three different methods. One group is taught by a method which begins with the standard activities planned to develop reading readiness and then proceeds to preprimers and primers of a basal reading series. Another group is taught by an English-as-a-second-language method which emphasizes listening and speaking. In a third group writing is introduced along with reading. Children first dictate stories to the teacher, who writes them; then the children read and copy their stories and eventually write their own. Teachers are encouraged to make extensive use of the experience the Spanish-speaking children have had and to have them teach some Spanish to the other children and to the teacher.

In recent years the poor performance of culturally disadvantaged children has been attributed to their lack of reading skill. Many of these children fail to make any progress in reading during the first grade, and as a result many schools serving these children have whole classes of nonreaders in the third grade. In one project of the cooperative study two contrasting methods of teaching reading to culturally disadvantaged children will be used: A method by which students are given many opportunities to have rich experiences with language and a formal method emphasizing skills. Perhaps results of this study will indicate how children from culturally disadvantaged backgrounds can be helped to utilize their present abilities and to develop their potential abilities.

The role of the teacher is seldom underemphasized in reading research, but relatively little attention has been placed upon the role of the reading consultant, who provides the teacher with guidance and help. In one of the Office projects, the reading achievement of two groups of children will be compared in an attempt to determine the effect of the relationship between the teacher and the consultant. Half of the teachers will meet with the consultant in the typical way—in individual conferences. The other teachers will meet with the consultant in a group, for a half day twice a month. Teachers will be encouraged to exchange ideas and comments about teaching reading; the consultant will encourage the exchange and be available for suggestions and help.

Another project is concerned with the effectiveness of inservice training. The teachers will participate in a 2-week preschool seminar to study the implications of reading research for the first-grade teacher and during the school year in 25 weekly 2-hour seminars to exchange information on teaching techniques and diagnostic procedures.

All of the studies in the first-grade reading project will be completed in December 1965. All the common data will be handled by a coordinating center which is in communication with all projects and provides services requested by project directors.

RESULTS of the study, which will probably be publicized by the spring of 1966, will offer educators information they have sought for many years. The results may provide the answers to questions like these: What methods are most appropriate to use in teaching particular groups of children? What is the optimum age at which reading can be taught? How much readiness training do children need? And it will surely give all who study the results a better understanding of the reading process.

Since the first-grade reading project is a pioneering effort in large-scale educational research, it may set a precedent for future research on other widespread educational problems.

Cooperative Research Projects: A Seven-Year Summary, July 1, 1956–June 30, 1963 (OE–12018) *lists Cooperative Research projects by number, investigator, institution, title, and expected duration, and contains a list of depository libraries holding copies of final reports. Obtain from the Superintendent of Documents, Government Printing Office, Washington, D.C., 20402, for 45 cents a copy.*

The Scholastic Ability of School Dropouts

O. RAY WARNER

THE WIDELY HELD IMAGE of the dropout as lazy, unambitious, and below average in scholastic ability is like all stereotypes—oversimplified and based on uncritical judgment. When we subject the dropout to critical study the stereotype disappears and the individual shows through. Each new study of dropouts produces new evidence that they range widely in individual differences and in levels of intelligence: some are bright, some average, and some slow, all in need of more educational training than they are likely to get.

Nine recent surveys of over 21,000 dropouts in 7 communities (one survey), 3 States, 4 cities, and 1 county indicate that bright as well as slow pupils drop out of school and that differences between the intelligence of dropouts and the young people who remain in school are not as great as one might suspect:

I.Q. range	*Percent of population at each level* [1]	*Percent of dropouts at each level*	*Difference (percent)*
110 and above	30.7	11	−19.7
90–109	46.5	50	+3.5
80–89	14.5	20	+5.5
Below 80	8.2	19	+10.8

Although there were more dropouts in the two lower ranges and fewer in the top range, the largest percentage (50 percent) was in the "average" range—90 to 109. See table 1 for details.

At least 11 percent of the dropouts represented in the surveys reported in table 1 (those in the upper range) had the ability to complete college. The 50 percent in the 90–109 range could have completed post-high-school vocational-technical programs. Without education and training these young people are often doomed to jobs—when they can find employment—that are not challenging or in line with their ability. Life becomes a drudgery to them. Is not one of the most tragic aspects of the dropout problem the effect of insufficient education on the individual whose wasted abilities are a constant source of frustration to him?

Year by year these losses go on. Take the boys and girls missing from the high school graduating classes of 1958 and 1963, for instance. About 42 percent (1,100,000) of the pupils who entered the fifth grade in 1950 did not finish school in 1958; and 34 percent (1,040,000) of the pupils who entered the fifth grade in 1955

Table 1.—Scholastic ability of school dropouts based on nine studies: Number and percent of pupils at each level of ability

Agency conducting survey	I.Q. scores [1]								
	110 and above [2]		Between 90–109 [3]		Between 80–89 [4]		Below 80 [5]		Total
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number
Federal Government:									
U.S. Department of Labor, Bureau of Labor Security [6] (7 communities)	256	6	1,945	48	819	20	1,012	25	4,032
State departments of education:									
Connecticut	564	11	2,738	53	837	16	1,035	20	5,174
Ohio	497	8	2,829	44	1,641	25	1,476	23	6,443
Utah	170	14	683	54	248	20	165	13	1,266
County school system:									
Kanawha County, W. Va.	48	5	522	49	200	19	300	28	1,070
City school systems:									
Bridgeport, Conn.	29	12	134	50	54	22	39	16	256
St. Paul, Minn.	748	32	1,317	56	232	10	54	2	2,351
Syracuse, N.Y.	22	9	124	53	58	25	32	14	236
Tucson, Ariz.	100	15	391	58	122	18	56	8	669
Total	2,434	11	10,683	50	4,211	20	4,169	19	21,497

[1] The breakdown in I.Q. scores is based on such studies as these: The *American High School Today*, by James Bryant Conant (New York: McGraw-Hill Book Company, 1958, pp. 21, 61, and 89); *Guide to the Use of the General Aptitude Test Battery*, by the Bureau of Employment Security, U.S. Department of Labor (Publication No. B–1002, Washington, D.C., 1962, Sec. II, Norms); *University of Utah Studies in the Prediction of Academic Success*, by Farnk B. Jex (University of Utah, Monographs in Education, vol. 1, No. 1, July 1957.)

[2] Students with college potential.

[3] Students with vocational-technical potential.

[4] Students for whom no special high school or post-high school programs are provided.

[5] Students who can generally benefit from special education programs.

[6] U.S. Department of Labor, Bureau of Labor Statistics, *School and Early Employment of Youth: A Report of Seven Communities 1952–1957*, Bulletin 1277, Washington, D.C., U.S. Government Printing Office, August 1960.

Note.—Because of rounding figures may not total 100 percent.

[1] Lewis M. Terman and Maud A. Merrill, *Stanford-Binet Intelligence Scale: Manual for the Third Revision, Form L–M*, Boston: Houghton Mifflin Co., 1960.

did not finish school in 1963. By applying the percentages of students in the various categories of scholastic ability, as shown in table 1, to the number of young persons missing from these two classes, we can understand the current interest in the dropout problem:

★ About 121,000 of the pupils who dropped out before graduation in 1958, and about 114,400 of those who dropped out before graduation in 1963 could have completed college.

★ 550,000 of those who dropped out before 1958, and 520,000 of those who dropped out before 1963 could have completed vocational-technical programs.

★ 220,000 of those who dropped out before 1958 and 208,000 of those who dropped out before 1963 left school with practically no vocational preparation or training.

★ 209,000 students with I.Q.'s below 80 dropped out before 1958 and 197,600 before 1963. If these students had any vocational training at all, they received it through special education programs; see table 2. (Enrollment and dropout figures are Office of Education estimates. They include both public and nonpublic schools.)

If the current rate continues, about 7.5 million students will drop out of school between 1960 and 1970, and about 2.5 million of them will not go beyond the eighth grade, according to the Department of Labor's publication, *Manpower: Challenge of 1960's.* If we again apply the percentages for each level of scholastic ability (see table 1) to these figures, we get a picture of shocking waste. This means that 825,000 students who have the ability to complete college work or post-high school vocational-technical training and 3,750,000 who have the ability to complete post-high school vocational-technical training will not reach these goals. In addition, about 1.5 million young people with I.Q.s of 80 to 89 will drop out of school with little or no vocational preparation and training or educational programs available to them. They will not be able to qualify for vocational-technical programs because, generally, the types of training that vocational-technical schools offer require abilities in the average range or above. At the same time they fall outside the programs of special education that most States provide because these services are available to the pupil with an I.Q. of 80 and below. Those pupils with I.Q.'s below 80 who will withdraw from our public schools before graduation will have only limited post-high school training programs available to them. Some of them will be unable to find jobs; some may become juvenile delinquents; and very likely many will become welfare cases.

Table 2.—Number and scholastic ability of pupils entering the 5th grade in 1950 and 1955 who dropped out of school before graduation [1]

I.Q. scores (Stanford-Binet)	Number of pupils entering the 5th grade in 1950 who dropped out before high school graduation in 1958	Number of pupils entering the 5th grade in 1955 who dropped out before high school graduation in 1963	Percent of dropouts
110 and above.....	121,000	114,400	11
90–109.....	550,000	520,000	50
80–89.....	220,000	208,000	20
Below 80....	209,000	197,600	19
All levels..	1,100,000	1,040,000	100

[1] The number of pupils at each level of scholastic ability was obtained by applying the percentages in each category in table 1 to the total number of dropouts in the years covered.

Source: *Commitment to Youth: A Report of 5 Years of Progress in Guidance, Counseling, and Testing Under Title V of the National Defense Education Act, 1958–59/1962–63,* U.S. Department of Health, Education, and Welfare, p. 9.

The dropout problem, staggering as it is now, may reach even greater proportions. The school is only one agency which must assume responsibility for solving the problem. It cannot, no matter how versatile its curriculum, how effective its guidance services, or how many special programs it develops, keep every potential dropout in school. The home, the church, and other special institutions must assist the school in solving the problem. Through the united efforts of all of the institutions in our society, however, the tremendous loss of human resources and talent dormant in the dropout could be greatly reduced.

Source studies

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The Economic Opportunity Act of 1964

Education: Weapon Against Poverty

THE PROVISIONS of the Economic Opportunity Act of 1964 (Public Law 88–452) emphasize education as the first line of attack on poverty. Most of the programs the act establishes include education and training: Work and training programs for young people (title I), community action programs (title II), programs for migrant farm workers (title III), management training for small businessmen (title IV), work-experience programs for persons receiving public assistance (title V), and a volunteer service corps to work with antipoverty projects (title VI). The act, in effect, recognizes that a lack of education is often basic to such chronic and self-perpetuating conditions of poverty as unemployment, inadequate income, poor motivation, and limited economic opportunities.

The act establishes an Office of Economic Opportunity in the Executive Office of the President to administer its provisions. The Director of the Office has delegated authority for several programs to other Federal agencies, in accordance with the terms of the act. The funds authorized for the first year of operation, fiscal year 1965, total $947.5 million.

Programs for young people

Title I of the act authorizes three programs:

Part A sets up a Job Corps for young people, 16 to 21 years of age, to prepare them for responsible citizenship and employment through work experience, vocational training, basic education, health education, recreation, and counseling in conservation camps and residential training centers. It aims at reaching young people who need more education and training in order to get good jobs, and who cannot get that training in the communities in which they live. About 40,000 young people are expected to be enrolled in the Corps during the first year. The Office of Economic Opportunity is administering this program. The funds authorized for fiscal year 1965 total $190 million.

Part B of title I authorizes a work-training program for young people, 16 to 21 years of age, including part-time or full-time employment in meaningful tasks in the public interest. Its purpose is to help young people to resume their education or to increase their employability. The Federal Government, in agreements with State and local governments and nonprofit private organizations (including schools, hospitals, settlement houses, and conservation offices) will pay part (90 percent the first 2 years) of the cost of employing the young people accepted for the program.

The program should help the dropout by giving him an opportunity to acquire a good work record and basic and vocational education. It should also lower the number of dropouts by furnishing gainful part-time employment to students who would have to drop out of school because they lack adequate means of financial support.

The Department of Labor will administer part B. The funds authorized for 1965 total $150 million.

Part C of title I establishes a work-study program for needy college students, both graduate and undergraduate, through oncampus and offcampus jobs and authorizes Federal payment of part of the cost of the salaries and other expenses of the program.

Many of the offcampus jobs will have a strong tie-in with community action programs authorized by title II, discussed in the next section. In fact, the law requires that preference be given to work-study programs which are coordinated with community action programs.

The act does not prohibit the student accepted for a work-study program from obtaining a loan or a limited scholarship. In fact, the provisions of the act are intended to complement existing, often inadequate scholarship funds. The program, however, should help many needy students to avoid heavy debts. It should also enable many more qualified young men and women from poor families to attend college than present aid programs can help.

The Office of Education will administer the program through agreements with colleges and universities. The funds authorized for fiscal year 1965 total $72.5 million.

Community action programs

Title II, part A, authorizes Federal payments to communities for part of the cost of organizing and operating antipoverty programs mobilizing community resources, and part B authorizes grants to States to provide basic education to adults.

Part A encourages communities to develop their own ideas, to use their own resources, and to be responsible for planning and operating programs suited to local needs. Programs under part A should aim at increasing employment opportunities, improving human performance, and bettering the conditions under which people live, learn, and work.

Although community programs will include activities in many fields, the Committee on Labor and Public Welfare of the U.S. Senate in a report on the Economic Opportunity Act (Report No. 1218, July 21, 1964) says, "It is expected that virtually every community action plan will include broad-scale attack on the special educational problems of the poor." The Committee points out that many poor children begin school under severe handicaps, particularly in language. It recommends that communities develop a "balanced program of educational assistance" to include remedial programs, tutoring, field trips offering new experiences, preschool day-care or nursery centers for 3- to 5-year olds, inservice and preservice training for teachers, and the development of remedial material.

In addition, part A authorizes the Director of the Office of Economic Opportunity to provide technical assistance to communities conducting antipoverty programs. He may make grants to or contract with colleges and universities, public agencies, or private nonprofit organizations to conduct research, training, or demonstrations related to community antipoverty programs.

The Office of Economic Opportunity will administer this program. The funds authorized for fiscal year 1965 total $315 million.

The Office of Education has acted as an adviser to the Office of Economic Opportunity through a task force on the education of disadvantaged young people appointed by the Commissioner of Education last spring. Carl Marburger, head of the Great Cities Program in Detroit, is chairman of the task force, as a consultant to the Office of Education.

Part B of title II authorizes programs of basic education for adults whose knowledge of the English language and other basic skills, such as arithmetic, is so poor as to be a handicap in getting a job or receiving vocational training. It authorizes grants to States with approved plans for use by local education agencies in establishing pilot projects in education through the elementary level for adults who cannot read or write English, to pay the actual cost of instruction, and to assist State education agencies with the improvement of their technical and supervisory services for adult education programs. State plans must include provisions for cooperation between the State education agency and the State health authority to provide health information and services to adults who require them before they can enter a basic education program.

The Office of Education will administer part B. The funds authorized for 1965 total $25 million.

Programs in rural areas

Part A of title III authorizes a program of loans of up to $2,500 to farm families unable to meet the present credit terms of the Farmers Home Administration of the Department of Agriculture.

Part B is designed to reach migrant farm workers and their families, a group which has made little progress in education in the last 20 years. It authorizes the Director of the Office of Economic Opportunity to develop and implement a program of loans, loan guarantees, and grants to help State, local, and other public agencies and private nonprofit organizations to establish and operate programs to meet the needs of migrant workers and their children for housing, sanitation, education, and day-care of children.

The Department of Agriculture will administer part A; the Office of Economic Opportunity, part B. The fiscal year 1965 authorization for title III is $35 million; in addition, not more than $15 million may be used from other titles for the purposes of part B.

Small business incentives

Title IV authorizes the Office of Economic Opportunity to make, participate in, or guarantee loans to small businesses of up to $25,000 on more liberal terms than is possible under the regular loan provisions of the Small Business Act. The Director may, as he sees fit, require that the borrower take steps to improve his management skills by taking part in a management training program approved by the Director.

Work-experience programs

Title V extends recently established work-experience programs to expand opportunities for constructive work experience, training, and education for persons receiving public assistance. It is designed to reach parents lacking in work experience, training, and self-confidence to make them self-supporting. These include over 100,000 women who, as heads of families, are receiving aid under the Aid to Families with Dependent Children program. Programs that increase the employability of these women should also raise the educational level of the family. Such programs should include provisions for proper care of children while their mothers are in training.

The act makes it explicit that work-experience programs must make maximum feasible use of education and training programs conducted under the Manpower Development and Training Act and the Vocational Education Act of 1963.

The Department of Health, Education, and Welfare will administer this title. The funds authorized for fiscal year 1965 total $150 million.

The volunteer corps

Title VI sets up the administrative procedures for the act and authorizes a corps of volunteer workers to be known as the Volunteers in Service to America (VISTA). It calls for the recruitment, selection, and training of dedicated volunteers to take part in antipoverty programs—to work with the Job Corps, work training programs, and community projects, as requested. Volunteers will also serve, as requested, as aides, teachers, counselors, and advisers to Federal, State, and local programs. They will also work with the mentally ill and mentally retarded. Service will be for 1 or 2 years. VISTA will also serve as a national clearinghouse for volunteers to match skills and needs.

The Office of Economic Opporunity will administer the VISTA program. The fiscal year 1965 authorization for title VI is $10 million.

Delinquency program extended

Public Law 88–368, signed by President Johnson on July 9, extends the Juvenile Delinquency and Youth Offenses Control Act of 1961 for 2 years and authorizes an appropriation of $10 million for fiscal year 1965. The act encourages community programs to combat juvenile delinquency through demonstration projects on community action and training centers for persons who work with delinquents and potential delinquents.

Classroom Teachers in Elementary and Secondary Schools

In 1973 this country will need 2.2 million teachers for its elementary and secondary schools—about twice as many as they had 10 years ago.

This is the expectation of the Office of Education, which has recently made its projections of the demand for teachers in both public and nonpublic schools through the fall of 1973. These projections are based on estimates of the school-age population and on these assumptions:

1. That the number of pupils per teacher will follow the trend it established during 1953–63. During that decade the pupil-teacher ratio decreased steadily at the elementary level: in public schools from 30.7 to 28.4; in the nonpublic schools, from 40.7 to 37.0. At the secondary level the ratio increased. In public schools it was 20.9 in 1953 and 1955 and 21.6 in 1963; in nonpublic schools it was 14.0 in 1953 and 18.5 in 1963.

2. That the distribution of teachers between public and nonpublic schools will remain about the same as it was in 1963. In that year over 86 percent of the elementary school teachers and 91 percent of the secondary school teachers were in public schools.

3. That teachers with substandard credentials will be replaced about as fast as they were during 1959–63—at an average of 2,000 a year.

4. That teacher turnover in the public schools will remain at the rate it has set, on the average, since 1959—at 8 percent.

5. That in the nonpublic schools one-half of all the teachers belong in religious orders and therefore the turnover rate there is 4 percent—half of what it is in the public schools.

As would be expected, the number of teachers will be increasing at all levels. The rate of increase will, however, be greater in secondary schools than in elementary because of the higher rate of enrollment increase and the lower pupil-teacher ratio. In 1953, approximately 36 percent of all classroom teachers were in secondary schools; in 1963, 42 percent, and a further increase is expected by 1973; by 1973 the number in secondary schools may be 29 percent greater than the 1963 total.

Year by year the demand for new teachers will increase as enrollment goes higher, as teachers with substandard certificates are replaced, and as teachers leave the profession (turnover). To take care of these needs the public schools will have to employ almost 1.8 million new teachers during the next 10 years, more than 75 percent of them to take care of teacher turnover.

The demand for new teachers in nonpublic schools is expected to be smaller in the next 5 years than it

Table 1.—Classroom teachers in regular elementary and secondary day schools, by control and level, United States (50 States and the District of Columbia): Total employed, 1953–63; projections of demand, 1964–73 [1]

(In thousands)

Fall	Total public and nonpublic			Public			Nonpublic [2] (Estimated)		
	K–12	Elementary	Secondary	K–12	Elementary	Secondary	K–12	Elementary	Secondary
1953.....	1,173	747	426	1,037	661	376	136	86	50
1954.....	1,208	781	427	1,068	691	377	140	90	50
1955.....	1,286	827	459	1,141	733	408	145	94	51
1956.....	1,354	854	499	1,199	751	447	155	103	52
1957.....	1,423	898	525	1,259	786	473	164	112	52
1958.....	1,476	931	545	1,306	815	491	170	116	54
1959.....	1,531	952	580	1,355	832	524	176	120	56
1960.....	1,594	984	610	1,408	858	550	186	126	60
1961.....	1,657	1,002	655	1,461	869	592	196	133	63
1962.....	1,716	1,027	688	1,508	886	621	208	141	67
1963.....	1,792	1,055	738	1,576	909	668	216	146	70
1964.....	1,848	1,089	759	1,625	940	685	223	149	74
1965.....	1,882	1,107	775	1,656	958	698	226	149	77
1966.....	1,920	1,128	792	1,692	977	715	228	151	77
1967.....	1,968	1,144	824	1,735	993	742	233	151	82
1968.....	2,005	1,155	850	1,764	1,001	763	241	154	87
1969.....	2,043	1,163	880	1,802	1,009	793	241	154	87
1970.....	2,075	1,174	901	1,831	1,017	814	244	157	87
1971.....	2,107	1,184	923	1,856	1,025	831	251	159	92
1972.....	2,140	1,196	944	1,889	1,037	852	251	159	92
1973.....	2,167	1,212	955	1,916	1,053	863	251	159	92

[1] Includes full-time and part-time classroom teachers; does not include teachers in residential schools for exceptional children, subcollegiate departments of institutions of higher education, Federal schools for Indians, and schools on Federal installations.

[2] Instructional staff; classroom teachers are not reported separately.

NOTE.—Because the figures are rounded, the detail may not add to totals shown.

SOURCES.—Data on classroom teachers, including estimates, are based on U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) *Enrollment, Teachers and Schoolhousing* (1954 through 1963); (2) *Statistics of State School Systems*, Biennial Survey of Education in the United States, chapter 2 (1951–52 through 1957–58); (3) *Statistics of State School Systems* (1959–60 and 1961–62).

The projections of classroom teachers are based on the assumption that the pupil-teacher ratios will follow the 1953–63 trend. The pupil-teacher ratios for public and nonpublic schools were applied to Office figures on enrollment in elementary and secondary schools to obtain the projections on classroom teachers.

Table 2.—Classroom teachers in public and nonpublic schools (elementary and secondary), United States (50 States and the District of Columbia); Total employed, 1959–63; projections of demand, 1964–73 [1]

Fall	Total teachers	Number of pupils per teacher		New certified teachers needed—			
		Elementary	Secondary	For enrollment increase	For replacement of teachers with substandard credentials [2]	For teacher turnover	Total
Public schools							
1959	1,355,288	28.7	21.5	48,998	−4,048	104,503	149,453
1960	1,408,093	28.4	21.7	52,805	4,723	108,423	165,951
1961	1,461,055	28.3	21.7	52,962	654	112,647	166,263
1962	1,507,552	28.5	21.7	46,497	8,988	116,884	172,369
1963	1,576,062	28.4	21.6	68,510	−545	120,604	188,569
1959–63	.....	.....	.....	269,772	9,772	563,061	842,605
1964	1,625,000	27.7	21.8	48,938	2,000	126,085	177,023
1965	1,656,000	27.6	21.8	31,000	2,000	130,000	163,000
1966	1,691,700	27.3	21.8	35,700	2,000	132,480	170,180
1967	1,734,570	27.1	21.8	42,870	2,000	135,336	180,206
1968	1,763,870	26.9	21.9	29,300	2,000	138,766	170,066
1964–68	.....	.....	.....	187,808	10,000	662,667	860,475
1969	1,802,190	26.7	21.9	38,320	2,000	141,110	181,430
1970	1,831,270	26.5	22.0	29,080	2,000	144,175	175,255
1971	1,855,710	26.2	22.0	24,440	2,000	146,502	172,942
1972	1,888,440	26.0	22.1	32,730	2,000	148,457	183,187
1973	1,915,960	25.8	22.1	27,520	2,000	151,075	180,595
1969–73	.....	.....	.....	152,090	10,000	731,319	893,409
Nonpublic schools							
1959	176,000	38.3	17.9	6,000	(3)	6,800	12,800
1960	186,000	38.1	18.3	10,000	(3)	7,040	17,040
1961	196,000	36.8	17.5	10,000	(3)	7,440	17,440
1962	208,000	37.0	18.0	12,000	(3)	7,840	19,840
1963	216,000	37.0	18.5	8,000	(3)	8,320	16,320
1959–63	.....	.....	.....	46,000	(3)	37,440	83,440
1964	223,000	37.0	19.0	7,000	(3)	8,640	15,640
1965	226,000	37.0	19.5	3,000	(3)	8,920	11,920
1966	228,000	37.0	19.5	2,000	(3)	9,040	11,040
1967	233,000	37.0	19.5	5,000	(3)	9,120	14,120
1968	241,000	37.0	19.5	8,000	(3)	9,320	17,320
1964–68	.....	.....	.....	25,000	(3)	45,040	70,040
1969	241,000	37.0	19.5	0	(3)	9,640	9,640
1970	244,000	37.0	19.5	3,000	(3)	9,640	12,640
1971	251,000	37.0	19.5	7,000	(3)	9,760	16,760
1972	251,000	37.0	19.5	0	(3)	10,040	10,040
1973	251,000	37.0	19.5	0	(3)	10,040	10,040
1969–73	.....	.....	.....	10,000	(3)	49,120	59,120

[1] Includes full-time and part-time classroom teachers; does not include teachers in residential schools for exceptional children, subcollegiate departments of institutions of higher education, Federal schools for Indians, and schools on Federal installations.

[2] Teachers with substandard credentials are not fully certified under the standards of their State. [3] Data applicable only to public schools.

SOURCES.—U.S. Department of Health, Education, and Welfare, Office of Education, *Enrollment, Teachers and Schoolhousing* circulars (1959 through 1963) and *Statistics of State School Systems* (1959–60 and 1961–62). The projection of the demand for new teachers to take care of increases in enrollment was computed each year as the difference between the total number employed during the current year and the total employed during the preceding year. The projection of the demand for new teachers to replace teachers with substandard credentials is based on the assumption that such teachers will be replaced at the rate of 2,000 a year, the average for the 1959–63 period. The projection of demand for new certificated teachers to take care of teacher turnover in public schools is based on the assumption that 8 percent of the total number of teachers will leave the teaching profession each year. A lower turnover rate—4 percent—was used in computing demand for nonpublic schools on the assumption that one-half of all their teachers belong to religious orders and that turnover would therefore be smaller.

was in the past 5 years(the 1959–63 total was 83,000) because enrollment increases are expected to be smaller. An estimated 70,000 will be needed between 1964 and 1968 and 59,000 between 1969 and 1973, which means approximately 130,000 new teachers will be employed in nonpublic schools in the next 10 years, approximately 70 percent of them to take care of turnover.

Table 3.—Instructional staff [1] in regular elementary and secondary day schools, by control, United States: Total employed, 1953–63; projections of demand, 1964–73

(In thousands)

Fall	Total	Public schools	Nonpublic schools
1953.....	1,249	1,113	136
1954.....	1,285	1,145	140
1955.....	1,369	1,224	145
1956.....	1,444	1,289	155
1957.....	1,520	1,356	164
1958.....	1,581	1,411	170
1959.....	1,644	1,468	176
1960.....	1,715	1,529	186
1961.....	1,787	1,591	196
1962.....	1,853	1,645	208
1963.....	1,939	1,723	216
1964.....	2,001	1,778	223
1965.....	2,039	1,813	226
1966.....	2,082	1,854	228
1967.....	2,136	1,903	233
1968.....	2,177	1,936	241
1969.....	2,220	1,979	241
1970.....	2,255	2,011	244
1971.....	2,291	2,040	251
1972.....	2,328	2,077	251
1973.....	2,359	2,108	251

[1] Includes principals, supervisors, librarians, guidance and psychological personnel as well as full-time and part-time classroom teachers. Does not include instructional staff in residential schools for exceptional children, subcollegiate departments of higher education, Federal schools for Indians, and schools on Federal installations.

SOURCES.—Data on instructional staff, including estimates, are based on U.S. Department of Health, Education, and Welfare, Office of Education publications (1) *Enrollment, Teachers and School housing* circulars (1954 through 1963); (2) *Statistics of State School Systems circulars* (1959–60 to 1961–62).

The projection of instructional staff in regular public day schools is based on the assumption that the ratio of instructional staff to classroom teachers will follow the 1953–63 trend. The ratio was 107.3 in 1953, 109.3 in 1963, and is expected to be 110 by 1973.

AD Minutes Briefly noted--- for the busy School Administrator

Material for this department is prepared by the staff of the Division of Educational Organization and Administration

We've long known that the socio-economic status of the suburban population is higher than that of the urban population, but we have not known how much. Now we have some facts. A statistical bulletin of the Metropolitan Life Insurance Company reports the differences in the 10 most populous areas, areas which contain about one-fourth of the total U.S. population. The bulletin, using U.S. Bureau of the Census data, also points out that the differences between suburban and urban populations in level of education, income, and occupational status in these areas have been generally widening.

The following statistics, selected at random from the bulletin, indicate the breadth of the differences.

In three of the metropolitan areas—Chicago, Philadelphia, and St. Louis—the proportion of the population 25 years old and over with a high school or higher education was about 1½ times as large outside the cities as within the cities. In Philadelphia, for example, the comparable figures were 46 percent of the suburban population and 30 percent of the urban.

In all three cities, the percentages of the population engaged in professional and managerial work parallel those on educational attainment. In urban Chicago, for example, 16 percent of all persons 14 years old and over were in such work; in suburban Chicago, 26 percent.

Because of their more favorable educational and employment status, suburban dwellers have a greater family income than urban dwellers. In Philadelphia and Washington, the proportion of the population with incomes of $10,000 and over was 1⅔ to 1; in New York and Boston it was 1¾ to 1; and in St. Louis it was 2 to 1.

These generalizations do not hold for all metropolitan areas. A recent report of the Advisory Commission on Intergovernmental Relations, which analyzed population disparities in metropolitan areas, concluded that for many characteristics the differences among metropolitan areas are far larger than the differences between cities and suburbs within them.

We have not passed the point where a dollar invested in education would yield less to the community than a dollar in new plant and equipment. The rate of return on investment is about the same as the rate of return on business investment. This is the opinion of the Chase Manhattan Bank as reported in *Business in Brief*, its bimonthly newsletter.

The bank backs up its statement with these figures: 24 percent of the increase in gross national product and 44 percent of the advance in output per worker from 1929 to 1957 can be attributed to the much higher level of education of the labor force; and increased knowledge and its application accounted for another 17 percent of the growth in GNP and 31 percent of the rise in output per employee during that period.

The Washington State School Di-

rectors' Association quotes the bank in its leaflet, *Investment in Education*, along with data drawn from several research and other reports.

According to the leaflet, Washington State is proving its confidence in the soundness of educational investment by putting 4.8 percent of its total personal income in education compared with the national average expenditure of 4.3 percent. In the past 10 years, Washington has increased its expenditure per pupil by 68.6 percent. The School Directors' Association is not satisfied with this progress, however, for it points out that the State still ranks 23d nationally. And in *Investment in Education*, it reminds Washington taxpayers that increased education leads to higher personal income, that a person who earns a higher salary pays higher taxes, produces more goods and services, and therefore contributes more to an expanding economy.

In Washington, D.C., plans are being made to establish a semiautonomous educational subsystem in the inner city. The system will include 18 schools, all feeding into Cardozo High School, and will cost approximately $10 million. The D.C. project was stimulated by a brief description of model systems in *Innovation and Experiment in Education*, a report made by the panel on Educational Research and Development under the auspices of the President's Science Advisory Committee.

In other cities, too, educators and school board members, aware of the urgent need for large city school systems to deal effectively with increasingly complex and fast-changing educational problems, are considering the value of establishing subsystems. They believe that such a subsystem would offer these advantages:

Decentralization—It would break down the often unwieldy school system complex and tend to "humanize" an otherwise faceless bureaucratic structure.

Control—As "a slice" of the whole system, detached from the existing structure, it would lend itself to more controlled management and operation and yet be large enough to absorb innovative practices.

Flexibility—It would permit a host of organizational, instructional, and curricular innovations to be introduced without committing the entire system; successful practices could then be fed into the system.

Concentration—It would make it possible for the school to serve the needs of atypical children expeditiously—the gifted, the handicapped, the culturally deprived.

In several large cities, members of school boards and educators are weighing the pros and cons of having a school attendance center which would draw students from a large area. The buildings in such a center would include those for primary, intermediate, junior, and senior high schools and, if available, the 13th and 14th grades or a community or junior college. This type of educational unit has been referred to in a number of different terms, for example, educational park, complex, plaza, and campus.

Among the cities for which such parks have been proposed are Boston, Cincinnati, Cleveland, East Orange (N.J.), New York City, and Pittsburgh. Pittsburgh has perhaps gone further in planning than other cities. There a team of architects, engineers, and educators, under the direction of Superintendent of Schools, S. P. Marland, Jr., is developing plans for an educational park to be located on the fringe of a disadvantaged area. The park may cover from 50 to 70 campus-like areas and may include one or more elementary schools, a middle school, a comprehensive high school, and a center for occupational-vocational technical education. Although the Pittsburgh school system has no money to carry out such a program, school officials hope that current plans will attract enough foundation support and additional tax money to enable them to translate the plans into reality.

The proposal for an educational park for New York City—the proposal was made in a report to State Commissioner of Education James E. Allen—led to a meeting at Arden House. Those attending the meeting generally favored such a facility on an experimental or prototype basis. They generally conceded that such parks could help reduce the racial imbalance in the city school system. But, they said, to serve this purpose parks would have to be considered by parents as centers of educational excellence, would perhaps have to be located near universities or other related facilities and to offer a variety of educational and cultural services and opportunities economically available only in large centers.

The transition in the State department of education from a largely regulatory agency to one providing constructive leadership in improving State systems of education has been accompanied by increasing emphasis on research and planning. The trend toward upgrading research and program planning in State school administration is indicated by the title of the Superintendent's deputy in seven States: Hawaii, assistant superintendent, research; Michigan, assistant superintendent, research and educational planning; New York, associate commissioner, research; Oregon, assistant superintendent, educational development; Pennsylvania, deputy for development; Rhode Island, associate commissioner, research and planning; and Wyoming, deputy superintendent, research.

A further illustration of broadened State interest in research is shown by the Michigan State department of education's establishment of five cooperative research panels to encourage research in local school districts. The panels have three primary functions: (1) To assist local districts in the design and development of research relating to local educational problems, (2) to screen and approve research proposals transmitted from

(Continued on p. 35)

BONDS

for educational purposes

. . . sales, interest rates, et cetera . . .

FOR THE PUBLIC SCHOOLS

By ELMER C. DEERING, *specialist on the financing of school facilities, Division of Elementary and Secondary Education, Office of Education.*

DEVELOPMENTS during the past 3 years indicate that changes in the interest rates on school bonds may result partly from changes in the activity of commercial banks in the municipal bond market.

Between June 30, 1961, and June 30, 1964, time deposits of all commercial banks in the United States rose from $79.4 billion to $118.3 billion—an increase of $38.9 billion, or 49 percent. During the same period these banks increased their municipal bond holdings from $18.7 billion to $31.3 billion—an increase of $12.6 billion, or 67.4 percent. The increase in bond holdings represented 32.4 percent of the increase in time deposits.

The interest rates on school bonds dropped after December 1961, shortly after the commercial banks increased their activity in the municipal bond market. After June 30, 1963, the rate of increase in both the time deposits and the municipal bond holdings of commercial banks slowed down; and shortly thereafter, the interest rates on school bonds began to rise (see chart).

Time deposits and municipal bond holdings of commercial banks, fiscal years 1961–64

Year ending June 30	Time deposits		Municipal bond holdings		
	Amount (billions)	Percent increase over previous year	Amount (billions)	Percent increase over previous year	As a percentage of time deposits
1961	$79.4	11.2	$18.7	11.3	23.6
1962	92.0	15.9	23.2	24.1	25.2
1963	105.9	15.1	27.8	19.8	26.3
1964	118.3	11.7	31.3	12.6	26.5

Average net interest cost of Moody-rated bonds sold on the primary market for public schools, by rating and by term of bond, for the latest quarter and month available

Term of bond	Aaa	Aa	A	Baa	Ba	All rated bonds
	Latest quarter (April–June 1964)					
Under 15 years	2.87	2.91	2.92	2.95	.....	2.91
15–24 years	2.93	3.09	3.20	3.48	3.82	3.21
25 years and over	.....	3.20	3.26	3.52	3.81	3.33
All terms	2.90	3.13	3.18	3.49	3.82	3.23
	Latest month (August 1964)					
Under 15 years	2.70	2.81	3.07	3.28	.....	2.99
15–24 years	.....	2.97	3.13	3.47	.....	3.18
25 years and over	.....	.....	3.24	3.59	3.84	3.44
All terms	2.70	2.94	3.14	3.49	3.84	3.22

Average net interest cost of Moody-rated bonds sold on the primary market for public schools, by rating only: Annual 1959–60 to 1963–64; monthly, August 1963 to August 1964

Period	Aaa	Aa	A	Baa	Ba	All rated bonds
1959–60	3.26	3.63	3.77	4.21	4.55	3.84
1960–61	2.82	3.34	3.43	3.75	3.97	3.48
1961–62	2.84	3.23	3.19	3.51	3.93	3.27
1962–63	2.64	2.86	2.99	3.29	3.72	3.03
1963–64	2.88	3.07	3.16	3.43	3.80	3.21
1963						
August	2.62	2.98	3.04	3.37	3.75	3.07
September	.....	2.96	3.13	3.33	3.76	3.19
October	2.76	3.05	3.18	3.38	3.73	3.18
November	2.89	3.14	3.25	3.46	.....	3.25
December	2.86	3.04	3.18	3.50	3.80	3.23
1964						
January	.....	3.05	3.21	3.46	3.81	3.25
February	2.85	2.87	3.13	3.39	3.83	3.16
March	3.00	3.08	3.29	3.47	3.88	3.32
April	.....	3.09	3.20	3.49	3.81	3.24
May	2.83	3.16	3.13	3.47	3.73	3.22
June	2.94	3.14	3.19	3.50	3.86	3.24
July	2.77	3.20	3.18	3.50	.....	3.25
August	2.70	2.94	3.14	3.49	3.84	3.22

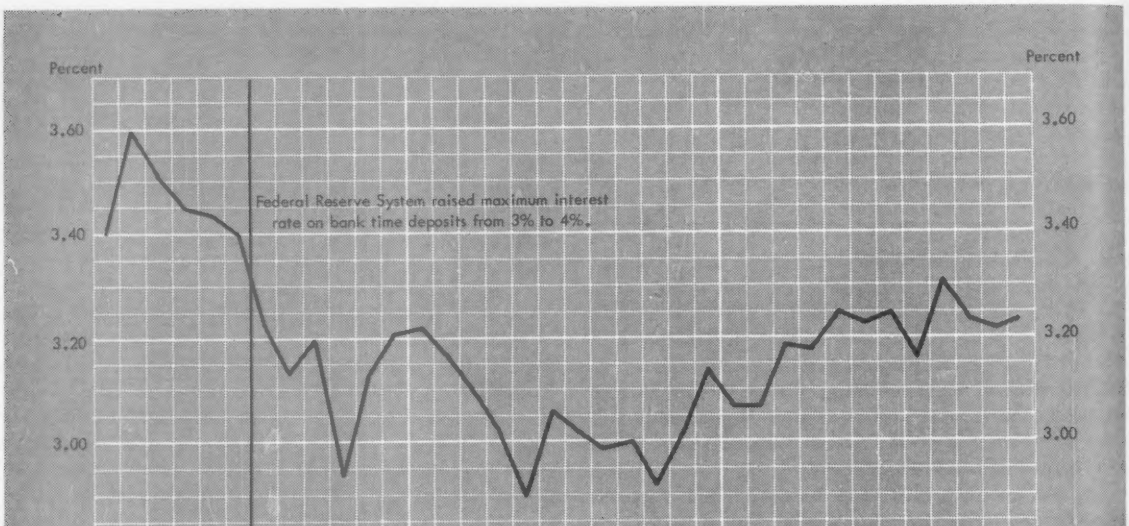
Source: Sales reported by The Daily Bond Buyer; ratings reported by Moody's Investors Service (rated bonds include from 75 to 80 percent of all bonds for public school purposes.)

FOR COLLEGES AND UNIVERSITIES

By PAUL K. NANCE, *acting chief, Higher Education Business Administration Section, and Elmer C. Deering*

BOND SALES for institutions of higher education during the first 6 months of 1964, totaling $446.8 million, amounted to 60 percent of the total sales for the full year 1963. The largest monthly total was in April—$176,940,000—when a sale by the State University of New York brought in $91,690,000 for constructing instructional facilities at 16 institutions.

The average interest rate on all bonds sold during the 6-month period was 3.50 percent, compared to 3.35 percent in 1963. The average for public institutions was 3.51 percent, compared to 3.32 percent in 1963; for private institutions 3.46 percent, compared to 3.38 percent in 1963.



Average net interest cost on Moody-rated school bonds, by months, July 1961 to June 1964.

Public institutions distributed the proceeds of their sales rather evenly between instructional and auxiliary facilities; private institutions, however, used the proceeds of all but one sale to finance auxiliary facilities.

Eight of the sales made during the 6-month period for residential facilities were for married students' apartments. Ten sales totaling $5,791,000 were for land.

In addition to the sales of $446.8 million, bonds totaling $28.6 million were sold for the purpose of refunding previous obligations.

The following table gives both detail and summary of the sales for the 6-month period—January–June.

Bonds sold for higher education, January–June 1964, by various groupings

Type of financing, bond, and facility	Sales (number)	Amount ($1,000)	Percent of total sales	Interest (percent)
PUBLIC INSTITUTIONS	199	363,822	100.0	3.51
Type of financing:				
HHFA	46	73,923	20.3	3.42
Other	153	289,899	79.7	3.54
Type of bond:				
Revenue	135	311,820	85.7	3.56
General obligation	64	52,002	14.3	3.20
Type of facility:				
Academic (instructional)	68	172,173	47.3	3.51
Auxiliary	118	182,286	50.1	3.52
Auditorium-infirmary center	1	3,250	0.9	3.74
Dining hall	1	1,825	0.5	3.14
Gymnasium-fieldhouse	1	1,200	0.3	3.20
Infirmary	1	450	0.1	4.00
Laundry building	1	150	L	3.15
Married student apts	9	6,372	1.8	3.46
Natatorium-dispensary	1	425	0.1	3.36
Residential	77	120,011	33.0	3.49
Residential-dining	14	25,413	7.0	3.54
Residential-stadium	1	8,500	2.3	3.84
Residential-center	3	2,145	0.6	3.47
Stadium	1	175	0.1	3.23
Student center	6	12,250	3.4	3.66
Swimming pool	1	120	L	3.22
Campus improvements	13	9,363	2.6	3.44
Heating plant	1	2,587	0.7	3.65
Land	10	5,791	1.6	3.39
Power plant	1	850	0.3	3.15
Roads	1	135	L	3.22
PRIVATE INSTITUTIONS	65	82,995	100.0	3.46
Type of financing:				
HHFA	62	76,615	92.3	3.45
Other	3	6,380	7.7	3.48
Type of bond:				
Revenue	64	82,595	99.5	3.46
General obligation	1	400	0.5	2.93
Type of facility:				
Academic (instructional)	1	400	0.5	2.93
Auxiliary	64	82,595	99.5	3.46
Residential	38	43,396	52.3	3.47
Residential-dining	19	29,650	35.7	3.46
Residential-dining-ctr	2	4,825	5.8	3.40
Residential-student ctr	3	3,849	4.6	3.36
Student center	2	875	1.1	3.50
ALL INSTITUTIONS	264	446,817	100.0	3.50
Type of financing:				
HHFA	108	150,538	33.7	3.44
Other	156	296,279	66.3	3.54
Type of bond:				
Revenue	199	394,415	88.3	3.54
General obligation	65	52,402	11.7	3.20
Type of facility:				
Academic (instructional)	69	172,573	38.6	3.51
Auxiliary	182	264,881	59.3	3.50
Auditorium-infirmary-center	1	3,250	0.7	3.74
Dining hall	1	1,825	0.4	3.14
Gymnasium-fieldhouse	1	1,200	0.3	3.20
Infirmary	1	450	0.1	4.00
Laundry building	1	150	L	3.15
Married students apartments	9	6,372	1.4	3.46
Natatorium-dispensary	1	425	0.1	3.36
Residential	115	163,407	36.6	3.48
Residential-dining	33	55,063	12.3	3.50
Residential-dining-center	2	4,825	1.1	3.40

Type of financing, bond, and facility	Sales (number)	Amount ($1,000)	Percent of total	Interest (percent)
Type of facility—Continued				
Auxiliary—Continued				
Residential-stadium	1	8,500	1.9	3.84
Residential-center	6	5,994	1.4	3.40
Stadium	1	175	0.1	3.23
Student center	8	13,125	2.9	3.65
Swimming pool	1	120	L	3.22
Campus improvements	13	9,363	2.1	3.44
Heatingplant	1	2,587	0.6	3.65
Land	10	5,791	1.3	3.39
Powerplant	1	850	0.2	3.15
Roads	1	135	L	3.22

In July 1964, the latest month for which complete data were available at press time, there were 46 bond sales for higher education—26 by publicly controlled institutions. Total proceeds were $170.6 million—$140.4 million for public institutions and $30.2 million for private. The average interest rate was 3.47 percent—3.46 percent for public institutions and 3.51 percent for private.

All sales by private institutions were for the construction of auxiliary facilities. Sixteen of their 20 offerings were purchased by the Community Facilities Administration of the Housing and Home Finance Agency (HHFA). The Dormitory Authority of the State of New York financed dormitory construction at 4 private institutions in that State. Seven of the issues sold by public institutions were purchased by HHFA.

Almost three-fourths of the total proceeds were to be used for instructional facilities, all at public institutions. Among the auxiliary facilities were 4 student centers at public institutions and 4 at private institutions. More than a fourth of the total funds were secured by general obligation bonds sold to finance instructional facilities and 1 dormitory, all at public institutions.

In addition to the bonds sold to finance new facilities, bonds totaling $1,838,000 were sold by New Mexico Military Institute to refund previous indebtedness.

Bond sales for publicly controlled and privately controlled institutions of higher education in the United States, by institution, July 1964

Institution	Amount sold (000)	Term	Average net interest (percent)	Use of funds [1]
PUBLIC				
Arizona State College	$535	1–25	3.61	Res.
	680	26–40	[2] 3.63	Res.
California College of Medicine.	18	1–26	3.13	Instr.
State Colleges (Calif.)	14,496	1–26	3.13	Instr.
University of California	15,331	1–26	3.13	Instr.
Colorado School of Mines	485	1–18	3.45	Ctr.
	995	19–38	[2] 3.50	Res.(M.)
Hall County Junior College (Ga.).	750	1–20	3.36	Instr.

Bond sales for publicly controlled and privately controlled institutions of higher education, by institution, July 1964—Continued

Institution	Amount sold (000)	Term	Average net interest (percent)	Use of funds [1]
PUBLIC—Continued				
Southern Illinois University.	750	1–15	3.50	Ctr.
	3,250	1–30	3.84	Ctr.
	1,500	16–30	[2] 3.50	Ctr.
Butler County Junior College District (Kans.).	1,998	1–15	2.94	Instr.
Murray State College (Ky.)	255	1–9	3.35	Res.
	1,845	10–39	[2] 3.38	Res.
Western Kentucky State College.	4,000	1–30	3.68	Instr.
New Mexico Military Institute.	200	1–19	3.50	Res.
City University of New York.	1,000	1–31	3.14	Instr.
State University of New York.	75,080	1–31	3.64	Instr.
University of North Dakota.	350	1–15	3.63	Res.(M.)
University of Toledo (O.)	1,400	1–31	3.31	Res.
Central Oregon College	250	1–20	3.33	Instr.
State of Oregon [3]	12,180	1–30	3.15	Instr.
State of Oregon [4]	1,390	1–30	3.15	Instr.
Blinn College (Tex.)	39	1–15	3.61	Res.
	74	16–30	[2] 3.63	Res.
Snow College (Utah)	174	1–32	[2] 2.75	Res.-din.
	635	1–38	[2] 3.50	Res.-din.
College of William and Mary.	725	1–17	3.24	Res.
PRIVATE				
John Brown University	845	1–39	[2] 3.50	Res.
Wesley College	523	1–49	[2] 3.38	Res.-din.
MacMurray College	470	1–39	[2] 3.50	Ctr.
Anderson College	520	1–39	[2] 3.50	Ctr.
Butler Univ	990	1–38	[2] 3.38	Res.
Briar Cliff College	1,000	1–39	[2] 3.50	Res.-Ctr.
Luther College	850	1–38	[2] 3.38	Res.
Gordon College	1,570	1–49	[2] 3.50	Res.
Barnard College [5]	1,825	1–30	3.64	Res.
Cazenovia College [5]	3,260	1–30	3.67	Res.
College of St. Rose	756	1–28	[2] 3.38	Ctr.
Hartwick College	925	1–49	[2] 3.50	Res.
Long Island Univ. [5]	3,860	1–30	3.64	Res.
University of Rochester [5]	2,000	1–25	3.45	Res.
Wagner College	3,430	1–48	[2] 3.38	Res.
Yeshiva University	2,000	1–38	[2] 3.50	Res.
St. Andrews Presbyterian College.	325	1–40	[2] 3.63	Res.
University of Dayton	2,620	1–37	[2] 3.50	Res.
University of Portland	1,800	1–49	[2] 3.38	Res.-din.
Randolph-Macon Woman's College.	650	1–39	[2] 3.50	Res.-din.

[1] Abbreviations in this table indicate the following uses: Ctr. student center; Instr., instructional; Res., residential; Res.(M.), residential for married students; Res.-din., residential-dining.
[2] Purchased by HHFA, Community Facilities Administration.
[3] For institutions under State Board of Higher Education.
[4] For community colleges under State Board of Education.
[5] Financed by the Dormitory Authority of the State of New York.

Nonpublic High Schools: Fall 1963 Enrollment and 1962–63 Graduates

DIANE B. GERTLER

NEARLY 1,287,000 students were enrolled in grades 9 to 12 in 4,451 nonpublic high schools in the 50 States and the District of Columbia in the fall of 1963. An additional 14,300 students were attending 107 nonpublic high schools in Guam, Puerto Rico, and the Virgin Islands.

The term "nonpublic high schools," as used by the Office of Education in its statistical studies, includes all schools not financed from public funds, whether local, State, or Federal: Parochial or diocesan high schools, proprietary schools, tutoring schools, church-related or independent academies, and all other institutions functioning as high schools.

Between the 1961–62 school year, when an earlier count was taken, and the 1963–64 school year, the number of nonpublic schools offering grades 9, 10, 11 and/or 12 increased by 16.2 percent (from 3,831 to 4,451) and the number of students enrolled in those grades increased by 16.6 percent (from 1,103,421 to 1,286,843). Enrollment in public high schools has increased by 16.4 percent (from an estimated 9,327,278 to 10,857,401) over the same period. The number of grade 12 graduates from the nonpublic high schools rose from 231,000 in 1959–60, when the last previous survey was made, to 233,000

Table 1.—Enrollment in nonpublic schools, grades 9 to 12, by grade, and total enrollment as a percentage of total grade 9–12 enrollment in public and nonpublic schools, fall 1963

Region and State	Enrollment in nonpublic schools							Total enrollment of public and nonpublic schools,[1] grades 9–12	Nonpublic as percent of total enrollment, grades 9–12
	Number of schools with grades 9, 10, 11, and 12	Grade 9	Grade 10	Grade 11	Grade 12	Grade 9–12 ungraded or grade unknown	Total		
50 States and D.C.	4,451	361,080	330,660	314,972	278,277	1,854	1,286,843	12,144,244	10.6
NEW ENGLAND	568	40,009	34,477	32,907	29,107	96	136,596	698,215	19.6
Connecticut	116	9,275	8,635	8,051	6,792	10	32,763	170,158	19.3
Maine	59	5,342	3,137	3,120	2,368	35	14,002	68,717	20.4
Massachusetts	264	17,202	16,428	15,395	14,362	.....	63,387	337,302	18.8
New Hampshire	42	2,121	2,103	2,158	1,840	50	8,272	41,664	19.9
Rhode Island	61	4,284	2,319	2,302	2,200	1	11,106	52,800	21.0
Vermont	26	1,785	1,855	1,881	1,545	.....	7,066	27,574	25.6
MIDEAST	1,120	107,188	100,189	96,325	88,461	487	392,650	2,473,474	15.9
Delaware	20	1,183	1,121	1,152	914	.....	4,370	31,342	13.9
District of Columbia	33	2,167	2,072	1,945	1,667	54	7,905	40,944	19.3
Maryland	102	6,827	6,426	6,420	5,358	91	25,122	215,657	11.6
New Jersey	163	17,106	15,077	14,283	13,119	115	59,700	396,440	15.1
New York	484	47,672	43,935	39,641	37,796	161	169,205	1,022,180	16.6
Pensylvania	318	32,233	31,558	32,884	29,607	66	126,348	766,911	16.5
GREAT LAKES	842	93,935	85,353	81,992	70,766	272	332,318	2,492,113	13.3
Illinois	197	30,882	28,221	26,848	23,365	228	109,544	667,559	16.4
Indiana	66	7,685	6,984	6,431	5,290	.....	26,390	320,954	8.2
Michigan	292	20,707	18,829	18,215	15,702	.....	73,453	[2]554,914	13.2
Ohio	178	23,029	20,835	20,064	17,665	.....	81,593	659,001	12.4
Wisconsin	109	11,632	10,484	10,434	8,744	44	41,338	289,685	14.3
PLAINS	446	33,224	30,992	29,097	25,404	82	118,799	1,052,805	11.3
Iowa	99	6,554	6,185	5,890	4,735	.....	23,364	193,359	12.1
Kansas	43	2,835	2,696	2,524	2,146	.....	10,201	147,156	6.9

Table 1.—Enrollment in nonpublic schools, grades 9 to 12, and total enrollment, fall 1963—Continued

Region and State	Enrollment in nonpublic schools							Total enrollment of public and nonpublic schools,[1] grades 9–12	Nonpublic as percent of total enrollment, grades 9–12
	Number of schools with grades 9, 10, 11, and 12	Grade 9	Grade 10	Grade 11	Grade 12	Grade 9–12 ungraded or grade unknown	Total		
PLAINS—Continued									
Minnesota	87	7,908	7,572	7,236	6,447	4	29,167	253,227	11.5
Missouri	101	10,071	9,328	8,424	8,063	50	35,936	266,536	13.5
Nebraska	61	3,391	3,151	3,026	2,436	26	12,030	97,517	12.3
North Dakota	29	1,264	1,210	1,209	898	2	4,583	46,486	9.9
South Dakota	26	1,201	850	788	679	.....	3,518	48,524	7.3
SOUTHEAST	711	35,542	33,704	33,288	28,369	455	131,358	2,586,918	5.1
Alabama	38	1,608	1,726	1,797	1,533	39	6,903	218,014	3.2
Arkansas	23	810	724	742	659	2	2,937	127,518	2.3
Florida	117	5,334	4,675	4,255	3,480	52	17,796	321,766	5.5
Georgia	42	1,995	2,107	2,255	1,961	.....	8,318	266,335	3.1
Kentucky	82	6,306	5,750	5,579	4,528	14	22,177	198,874	11.2
Louisiana	119	8,136	7,621	6,993	6,033	20	28,803	213,116	13.5
Mississippi	44	1,225	1,114	1,189	996	1	4,525	144,334	3.1
North Carolina	50	974	929	1,164	1,053	2	4,122	323,534	1.3
South Carolina	25	838	789	797	650	.....	3,074	161,617	1.9
Tennessee	63	2,874	2,872	2,914	2,657	93	11,410	227,898	5.0
Virginia	83	4,059	4,255	4,460	3,851	190	16,815	252,177	6.7
West Virginia	25	1,183	1,142	1,143	968	42	4,478	131,735	3.4
SOUTHWEST	221	11,976	10,843	9,719	8,299	311	41,148	951,717	4.3
Arizona	31	1,907	1,778	1,457	1,248	273	6,663	99,409	6.7
New Mexico	34	1,526	1,411	1,218	987	4	5,146	72,414	7.1
Oklahoma	30	1,108	1,046	993	892	.....	4,039	168,911	2.4
Texas	126	7,435	6,608	6,051	5,172	34	25,300	610,983	4.1
ROCKY MOUNTAINS	85	5,009	4,506	4,240	3,428	3	17,186	326,922	5.3
Colorado	45	2,811	2,458	2,239	1,930	2	9,440	130,794	7.2
Idaho	9	306	325	272	197	.....	1,100	51,335	2.1
Montana	18	1,216	1,134	1,170	845	1	4,366	49,039	8.9
Utah	9	520	465	441	387	.....	1,813	73,069	2.5
Wyoming	4	156	124	118	69	.....	467	22,685	2.1
FAR WEST	458	34,197	30,596	27,404	24,443	148	116,788	1,562,080	7.5
Alaska	13	250	170	128	98	3	649	11,438	5.7
California	304	25,428	22,763	19,997	18,065	93	86,346	1,122,446	7.7
Hawaii	26	2,338	2,169	2,043	1,881	.....	8,431	49,724	17.0
Nevada	2	327	325	322	231	.....	1,205	23,476	5.1
Oregon	42	2,236	2,076	1,953	1,637	.....	7,902	137,592	5.7
Washington	71	3,618	3,093	2,961	2,531	52	12,255	217,404	5.6
OUTLYING PARTS	107	4,505	3,836	3,484	2,484	.....	14,309	134,699	10.6
Guam	8	480	279	179	137	.....	1,075	5,017	21.4
Puerto Rico	92	3,864	3,422	3,206	2,278	.....	12,770	127,797	10.0
Virgin Islands	7	161	135	99	69	.....	464	1,885	24.6

[1] Samuel Schloss and Carol Joy Hobson, *Fall 1963 Statistics on Enrollment, Teachers, and Schoolhousing in Full-Time Public Elementary and Secondary Day Schools.* U.S. Department of Health, Education, and Welfare. Washington: U.S. Government Printing Office, 1964. p. 17. Fall 1963 figures on public school enrollment are added to figures on nonpublic school enrollment derived from current survey.

[2] Postgraduates are included with ungraded secondary enrollment in the public schools.

in 1962–63, an increase over the 3-year period equal to seven-eighths of one percent. During the same interval, the number of public high school graduates increased by 84,000, or 5 percent.

Nonpublic high schools are educating 10.6 percent of all of the Nation's students in grades 9 to 12 and are producing 12 percent of the Nation's high school graduates. Comparable figures for grades 9 to 12 for earlier years are not available. The States having the highest and lowest percentages of all their public and nonpublic high school students and graduates in nonpublic schools are listed in the table below. Substantially the same group of States appears in the high and low listings for graduates as for enrollments, but their relative order varies.

New York and Pennsylvania lead all other States in the numbers of students attending and graduating from nonpublic high schools, a position these two States have held for at least 50 years. Illinois and California follow in decreasing numerical order. Since the 1947–48 nonpublic secondary school survey was made, California has overtaken Massachusetts, Michigan, and Ohio in the number of its nonpublic high school enrollments and graduates.

The 1963 data on nonpublic high schools were collected in a survey the U.S. Office of Education conducted last spring to obtain current data by State to supplement public high school data collected in its fall 1963 survey of public schools. (See *Fall 1963 Statistics on Enrollment, Teachers, and Schoolhousing in Full-Time Public Elementary and Secondary Day Schools*, by Carol Joy Hobson and Samuel Schloss, U.S. Department of Health, Education, and Welfare, Washington (OE–20007–64), 30 cents, U.S. Government Printing Office, 1964.) These data are essential to the administration of the Higher Education Facilities Act of 1963 (Public Law 88–204) which requires that grants for the construction of academic facilities be allocated among

Table 2.—Graduates from grade 12 of nonpublic high schools, 1962–63, number and percentage of all high school graduates (public and nonpublic): By State

Region and State	Graduates of nonpublic schools			Graduates, total public and nonpublic [1]	Nonpublic as percent of total graduates
	Boys	Girls	Total		
(50 States and D.C.)	111,379	121,380	232,759	1,943,603	12.0
NEW ENGLAND	13,032	11,842	24,874	114,401	21.7
Connecticut	3,450	2,997	6,447	28,825	22.4
Maine	1,253	1,034	2,287	10,800	21.2
Massachusetts	5,730	5,655	11,385	55,294	20.6
New Hampshire	981	587	1,568	6,408	24.5
Rhode Island	1,017	918	1,935	8,420	23.0
Vermont	601	651	1,252	4,654	26.9
MIDEAST	32,382	38,773	71,155	401,070	17.7
Delaware	392	406	798	4,832	16.5
District of Columbia	869	812	1,681	5,208	32.3
Maryland	1,929	2,434	4,363	33,178	13.2
New Jersey	5,495	5,697	11,192	65,631	17.1
New York	12,531	17,328	29,859	169,359	17.6
Pennsylvania	11,166	12,096	23,262	122,862	18.9
GREAT LAKES	28,211	31,425	59,636	394,038	15.1
Illinois	8,554	10,527	19,081	101,347	18.8
Indiana	2,116	2,272	4,388	50,889	8.6
Michigan	6,580	7,420	14,000	89,883	15.6
Ohio	7,050	7,226	14,276	101,469	14.1
Wisconsin	3,911	3,980	7,891	50,450	15.6
PLAINS	10,502	11,010	21,512	185,986	11.6
Iowa	2,218	2,058	4,276	34,083	12.5
Kansas	857	899	1,756	27,377	6.4
Minnesota	2,646	2,943	5,589	43,838	12.7
Missouri	3,159	3,238	6,397	46,097	13.9
Nebraska	996	1,115	2,111	16,879	12.5
North Dakota	364	437	801	8,956	8.9
South Dakota	262	320	582	8,756	6.6
SOUTHEAST	12,060	11,156	23,216	389,586	6.0
Alabama	722	666	1,388	33,739	4.1
Arkansas	289	236	525	19,634	2.7
Florida	1,611	1,366	2,977	47,145	6.3
Georgia	1,044	589	1,633	37,892	4.3
Kentucky	1,601	1,712	3,313	27,406	12.1
Lousiana	2,285	2,660	4,945	33,768	14.6
Mississippi	371	459	830	21,671	3.8
North Carolina	411	518	929	49,385	1.9
South Carolina	337	317	654	24,964	2.6
Tennessee	1,284	828	2,112	36,519	5.8
Virginia	1,770	1,382	3,152	37,349	8.4
West Virginia	335	423	758	20,114	3.8
SOUTHWEST	3,688	3,857	7,545	144,678	5.2
Arizona	526	601	1,127	15,519	7.3
New Mexico	467	511	978	9,830	9.9
Oklahoma	335	322	657	26,906	2.4
Texas	2,360	2,423	4,783	92,423	5.2
ROCKY MOUNTAINS	1,378	1,615	2,993	52,387	5.7

Table 2.—Graduates from Nonpublic Schools—Continued

Region and State	Graduates of nonpublic schools			Graduates, total public and nonpublic [1]	Nonpublic as percent of total graduates
	Boys	Girls	Total		
ROCKY MOUNTAINS—Con.					
Colorado	766	840	1,606	19,359	8.3
Idaho	88	101	189	8,870	2.1
Montana	347	432	779	8,165	9.5
Utah	153	208	361	12,194	3.0
Wyoming	24	34	58	3,799	1.5
FAR WEST	10,126	11,702	21,828	261,457	8.3
Alaska	36	37	73	1,638	4.5
California	7,411	8,540	15,951	189,451	8.4
Hawaii	876	888	1,764	9,494	18.6
Nevada	91	89	180	3,001	6.0
Oregon	684	793	1,477	22,349	6.6
Washington	1,028	1,355	2,383	35,524	6.7
OUTLYING PARTS	881	1,387	2,268	18,729	12.1
Guam	55	39	94	553	17.0
Puerto Rico	800	1,300	2,100	17,922	11.7
Virgin Islands	26	48	74	254	29.1

[1] Samuel Schloss and Carol Joyce Hobson, *Fall 1963 Statistics on Enrollment, Teachers, and Schoolhousing in Full-Time Public Elementary and Secondary Day Schools.* U.S. Department of Health, Education, and Welfare. Washington: U.S. Government Printing Office, 1964. p. 26. The number of high school graduates, 1962–63, for public schools is added to nonpublic high school graduates derived from current survey.

States with the highest and lowest percentages of all public and nonpublic high school students, fall 1963, and graduates, 1962–63, in nonpublic schools

State	Enrollment	State	Graduates
States with highest percentage in nonpublic high schools			
Vermont	25.6	District of Columbia	32.3
Virgin Islands	24.6	Virgin Islands	29.1
Guam	21.4	Vermont	26.9
Rhode Island	21.0	New Hampshire	24.5
Maine	20.4	Rhode Island	23.0
New Hampshire	19.9	Connecticut	22.4
Connecticut	19.3	Maine	21.2
District of Columbia	19.3	Massachusetts	20.6
Massachusetts	18.8	Pennsylvania	18.9
States with lowest percentage in nonpublic high schools			
North Carolina	1.3	Wyoming	1.5
South Carolina	1.9	North Carolina	1.9
Idaho	2.1	Idaho	2.1
Wyoming	2.1	Oklahoma	2.4
Arkansas	2.3	South Carolina	2.6
Oklahoma	2.4	Arkansas	2.7
Utah	2.5	Utah	3.0

the States on the basis of formulas using current figures on public and nonpublic school enrollment in grades 9 to 12 and on high school graduates.

Mrs. Gertler is an educational specialist for nonpublic elementary and secondary schools in the division of Educational Statistics of the Office of Education. Before coming to the Office in 1957, she was employed by the Social Security Board and the War Production Board.

AdMinutes

(continued from p. 28)

local districts to the U.S. Office of Education, and (3) to approve local district proposals submitted for support which is or may become available from the State department of education. Individual panel members also consult on occasion with local district administrators. Panel members are drawn from the State department, universities, and other professional groups, and appointed by the State superintendent to 1-year terms of office. Meetings are held as needed, at least two or three times a year.

The five panels are designated by title as responsible for research in administration and finance, community school relations, guidance and pupil personnel, teacher and instruction, and vocational education.

The Ohio Council for Education is concerned about the decline in the proportion of school revenue coming from State sources—the figure for Ohio is now less than 30 percent, while the national average is more than 40 percent. In an effort to increase the total, the Council, along with its 10 major affiliated organizations, is trying to get 93,000 signatures to a petition to the 106th General Assembly of Ohio. The petition will ask the legislators to increase State sales taxes and allocate additional revenues to support an improved foundation program for education.

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